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THE

ANATOMY OF THE ARTERIES

OF THE HUMAN BODY

WITH ITS APPLICATIONS TO PATHOLOGY AND OPERATIVE SURGERY

IN

LITHOGRAPHIC DRAWINGS [mounted]

WITH

PRACTICAL COMMENTARIES

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THE DRAWINGS FROM NATURE AND ON STONE BY JOSEPH MACLISE ESQ. SURGEON

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PREFACE.

Several years have elapsed since I became impressed with the belief that the difficulties which have often occurred in the performance of those surgical operations where the larger arteries are concerned have arisen, in great part, from want of sufficient acquaintance with the differences in anatomical disposition to which these vessels are subject—not merely those deviations in the origin of large branches, which are usually named varieties, but other peculiarities of various kinds which are liable to occur, such as those which affect the length, position, or direction of the vessels. Under that impression I was led to observe these circumstances more closely, and finally determined to obtain a record of the condition, whatever it might be, of the more important vessels in a considerable number of cases,—a record to be made especially with a view to points bearing on practical surgery.

With this view I examined with more or less attention the bodies which were received during a series of years for the study of anatomy into the School of Medicine in University College. These bodies, to the number of 930, were with rare exceptions so inspected with reference to the subject of my inquiries, that anything very unusual could not escape notice; and in order to insure accuracy, when other occupations allowed, the arteries were carefully examined and their condition noted at the time, attention being always particularly directed to those vessels and to the points in their history which seemed to be of importance in the practice of surgery.

This detailed investigation was continued until the number of cases observed appeared such as would afford grounds for reasonable conclusions both as to the limits of the deviations from the ordinary standard, and as to the relative frequency of their occurrence.

At the same time that the observations thus made were written down, drawings were obtained of all the important peculiarities which presented themselves, and when it was practicable the preparations were preserved.

The varieties in the arrangement of the blood-vessels thus noted, grew, as may be supposed, to be very numerous; but instead of difficulties multiplying with the number of observations, it was usually found that, as the facts accumulated, the transition from one state to a very different one ceased to be abrupt or without method, for others from time to time interposed which served to link them together.

Originally these observations were intended exclusively for the benefit of my class; but as their number and connexion seemed likely to render them more extensively useful, I resolved to publish them. On examining with a view to publication the materials which I had collected, it became obvious that their utility would be very limited, unless as a part of a full history of the arteries with adequate delineations. In consequence, a series of drawings, showing the arteries according to their usual arrangement, has been prepared, and to these are appended the observations previously alluded to. The work has thus grown under my hands, and has gradually assumed its present form.

To carry out my views as to the delineations, I obtained the assistance of my friend and former pupil, Mr. Joseph Maclise. In reference to that gentleman's labours, it may be allowed me to say, that while I have had the co-operation of an anatomist and surgeon, obviously a great advantage, the drawings will, I believe, be found not to have lost in spirit or effect. It affords me much gratification to render my acknowledgments to Mr. Maclise, for the readiness with which he acceded to my wishes, and undertook so arduous a task, and for the zeal with which he has devoted himself to it in the intervals of application to the duties of his profession.

Before I explain the plan pursued in this publication, it may be permitted me to advert shortly to the distinguishing features of the principal works hitherto published on the Arteries, because it will thus be apparent in what respects this publication differs from others.

The work of Haller*, the first in point of time which deserves notice, and still in many respects the best on the Anatomy of the Arterial System, is characterised by vast learning, by candour in the appreciation of the labours of others, and by accurate observation—in short, by those high qualities which distinguish all the writings of that illustrious author. The written descriptions, especially those of the branches, have perhaps never been equalled for copiousness and accuracy. But the drawings were in many instances taken from the bodies of very young children; and the treatise altogether is deficient in systematic arrangement and continuity, probably in consequence of the desultory manner of its preparation, and the length of time which intervened between the publication of its parts. On the whole, though not suited to general use, the "Icones Anatomicæ" are, and will continue to be, to the diligent inquirer, a most valuable contribution to the history of the arteries.

The representations of the arteries contained in Scarpa's work on Aneurism†, like all the delineations published by the same author, are most carefully and beautifully executed. They comprehend, however, but a small portion of the arterial system, and have obviously been intended to show, not so much the position and connexions of the arteries, as the branches by which the circulation is carried on after an operation for aneurism.

Tiedemann‡ has given, in the "Tabulæ Arteriarum," systematic and clear delineations of all the arteries, with many of their so-named varieties. To this very valuable work the modern student of anatomy is almost exclusively indebted for representations of the arterial system. In it, however, as in the other treatises referred to, the veins and nerves are not shown in connexion with the arteries, and those modifications or peculiarities of the vessels alluded to at the commencement of these observations are not taken into account.

In the present work, the arteries are represented—

1st.—According to their most frequent arrangement, without the accompanying veins and nerves.

2ndly.—They are shown in connexion with the larger veins and nerves.

3rdly.—The deviations from that which has been taken as the standard, because the most frequent condition of the arteries, are illustrated in a series of sketches. Into this part of the subject as much of arrangement or classification has been introduced as my information admits.

4thly.—Such peculiarities of the veins, and occasionally of the nerves and muscles, as appeared likely to be of importance in surgical operations, are represented on a reduced scale.

The letter-press, besides an explanation of the drawings and remarks on them, contains—

A series of Tables, showing, in a considerable number of instances, the condition of the arteries as to some of the points of most importance in their anatomy;

And Practical Commentaries; consisting, for the most part, of inferences from the facts previously set forth, and their application in performing surgical operations.

R. Q.

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* Icones Anatomicæ, quibus præcipuæ aliquæ partes Corporis Humani delineatæ proponuntur et Arteriarum potissimum Historia continetur. Gottingæ, 1756.

† Sull' Aneurisma Riflessioni ed Osservazioni Anatomico-chirurgiche. Pavia, 1804.

‡ Tabulæ Arteriarum Corporis Humani. Carlsruhæ, 1822.

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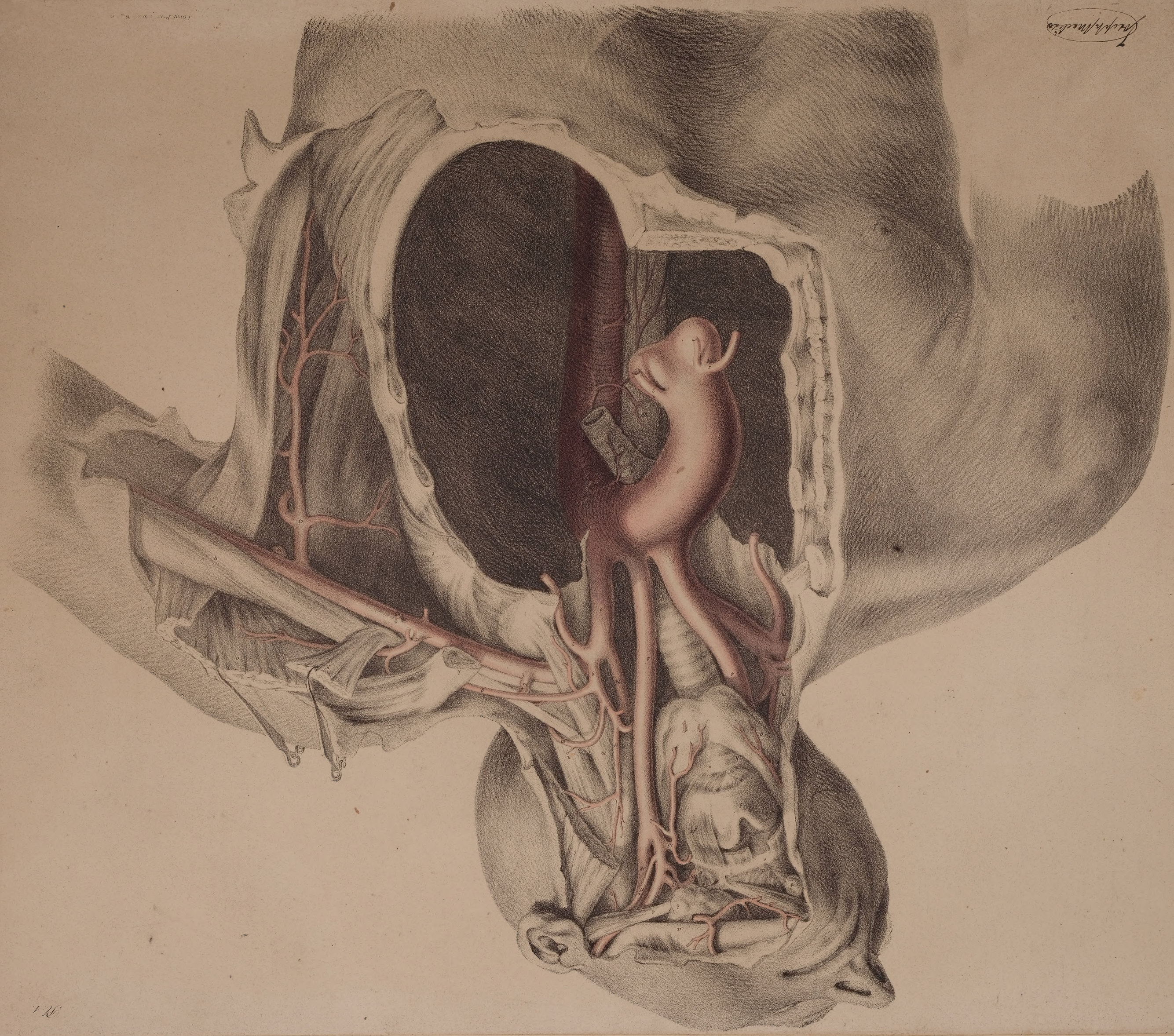

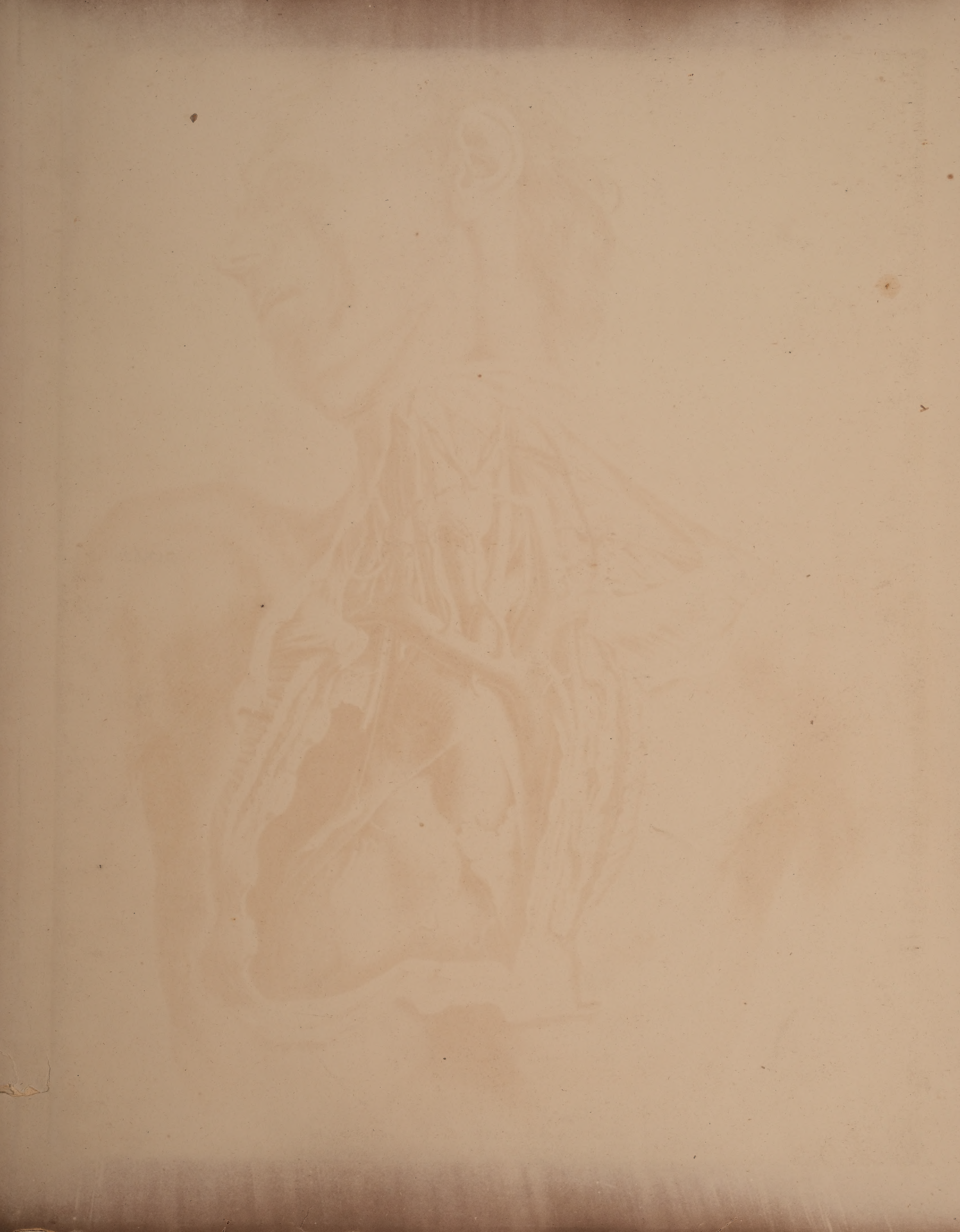

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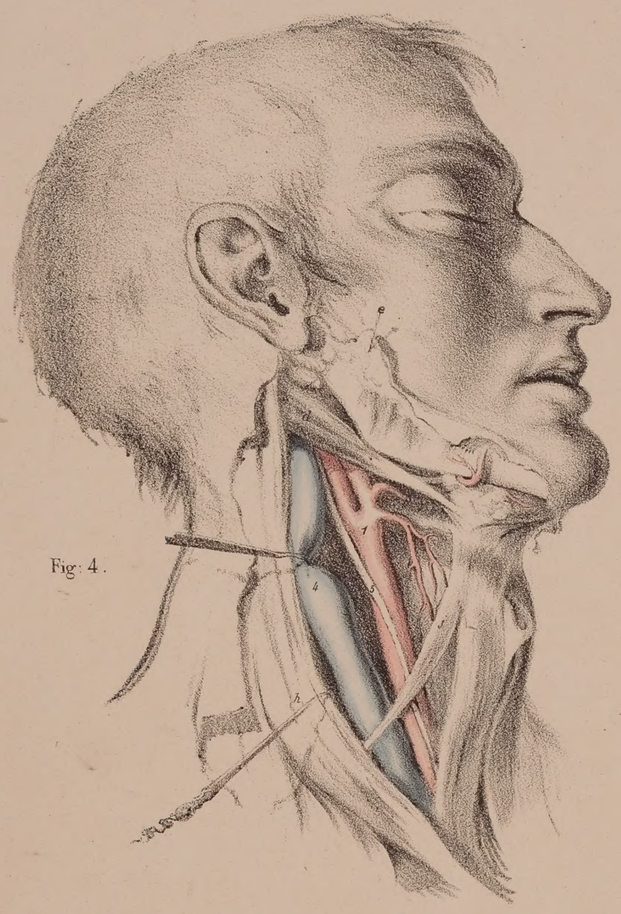

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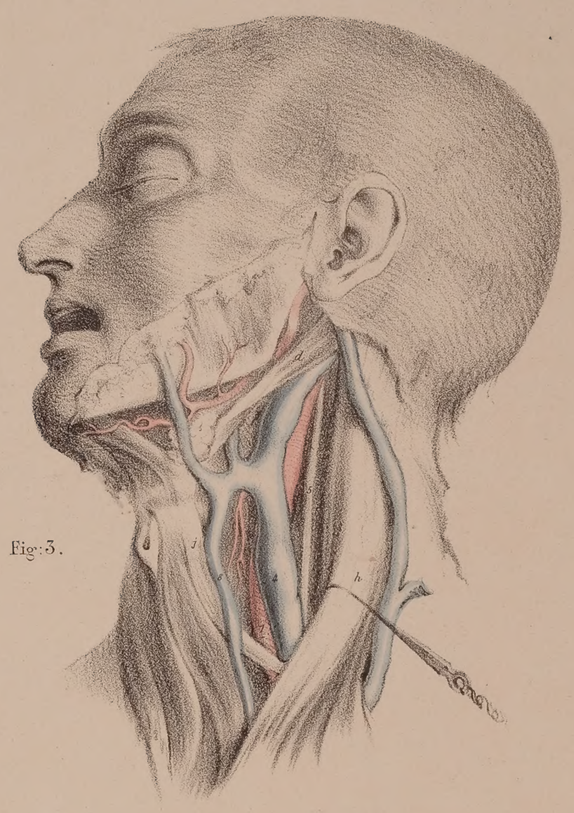

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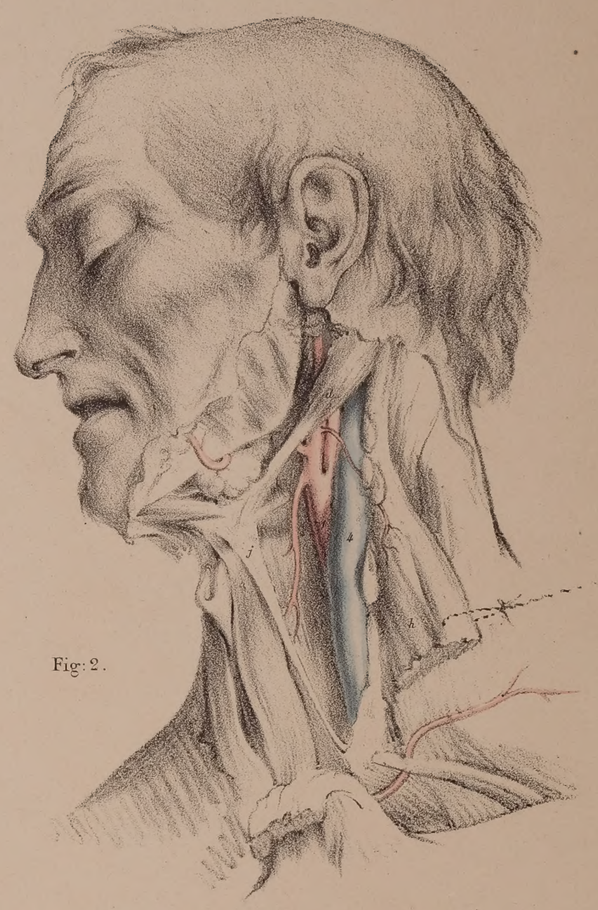

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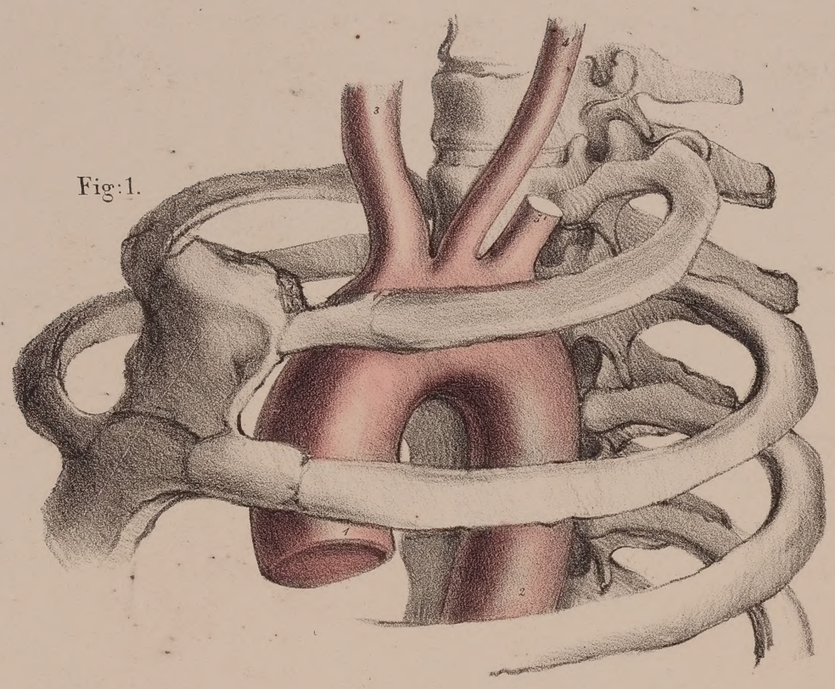

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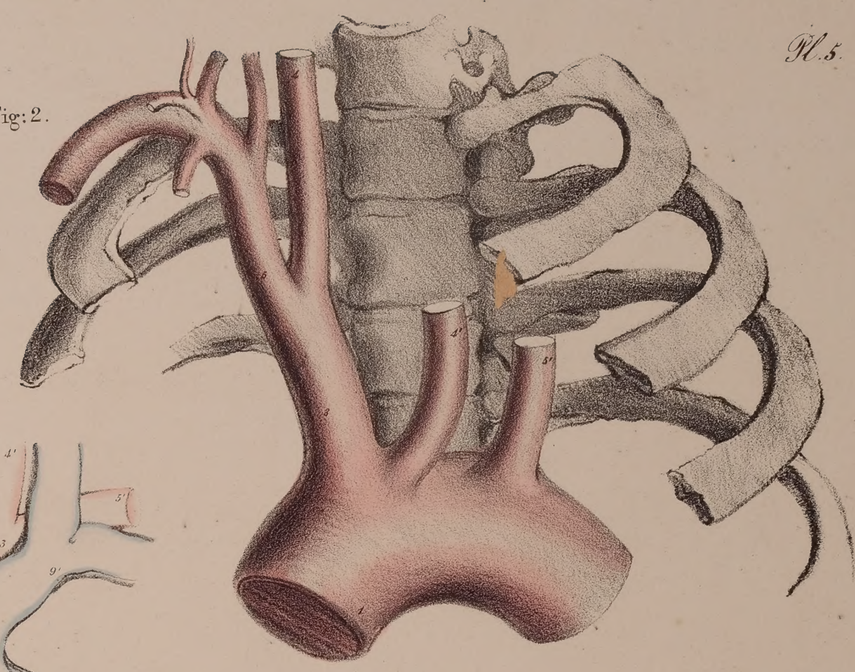

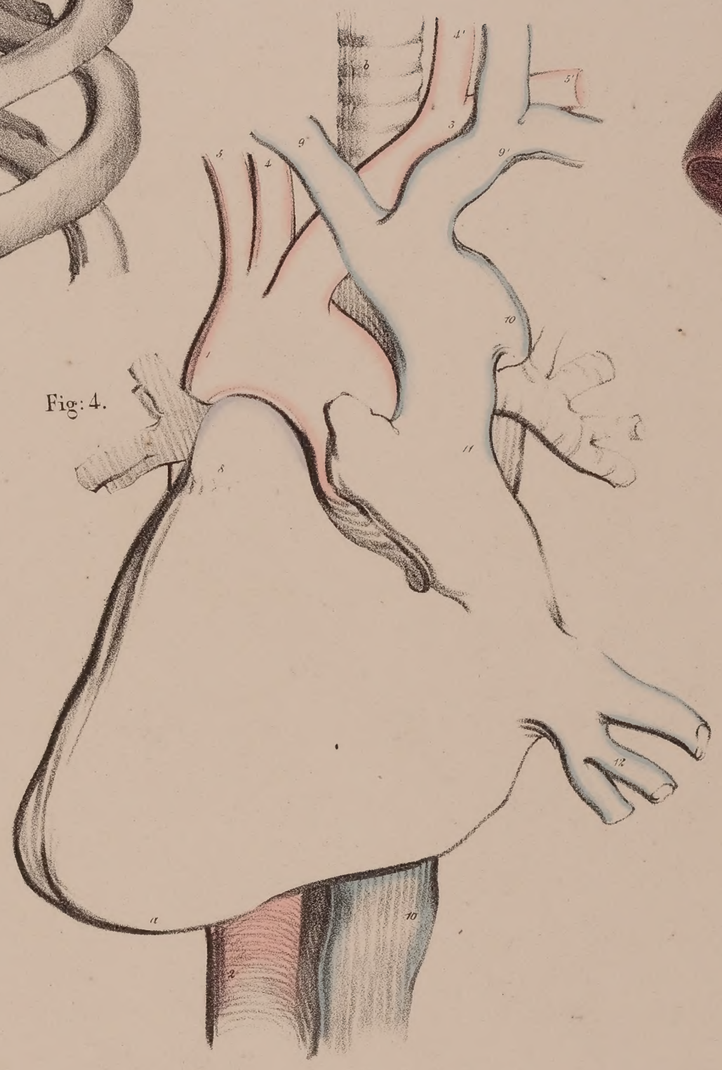

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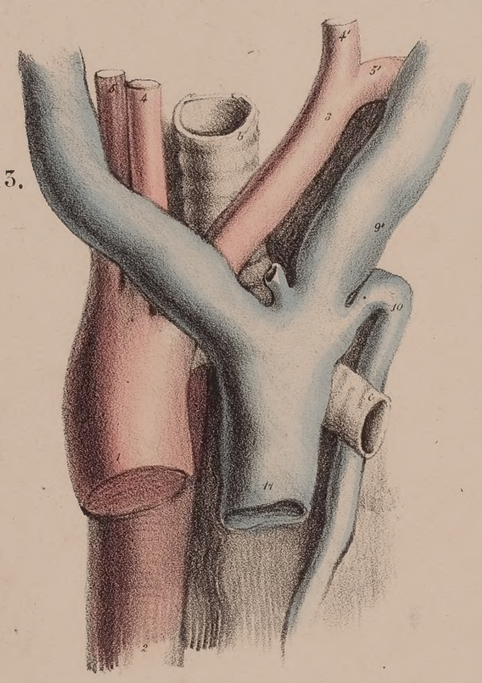

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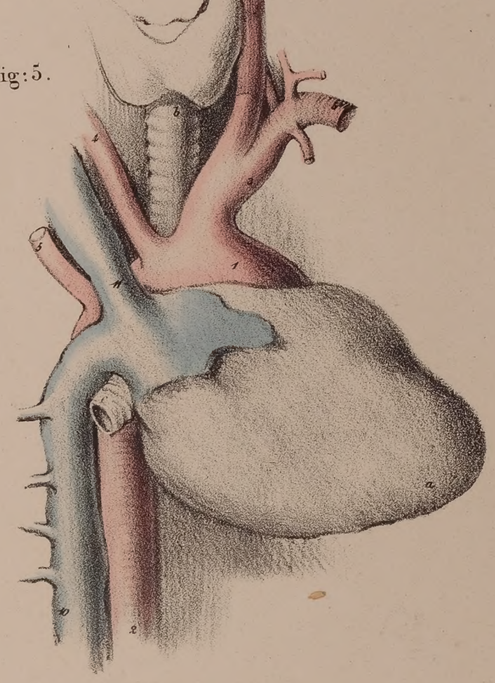

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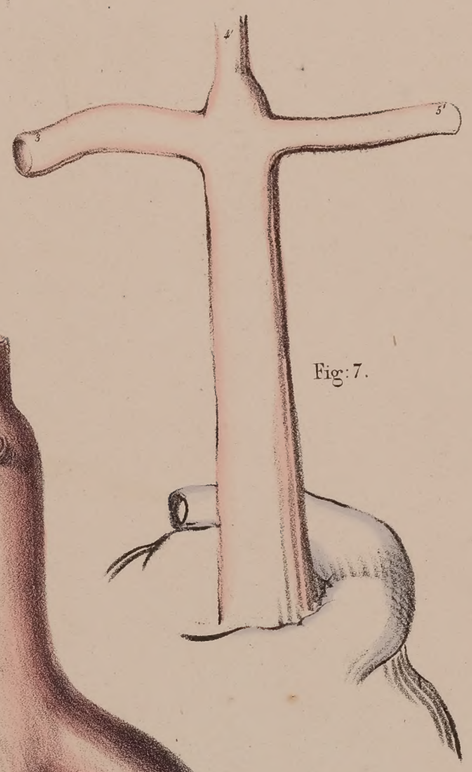

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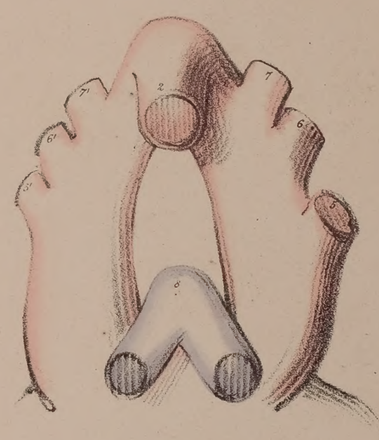

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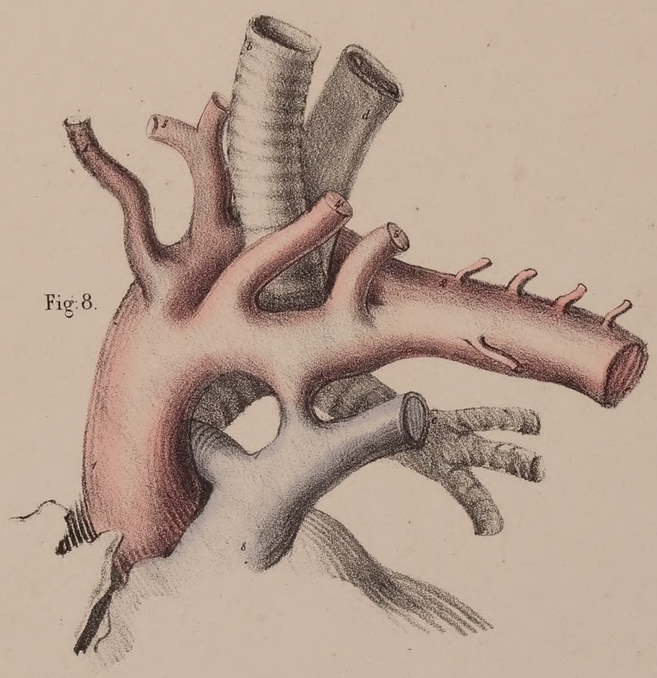

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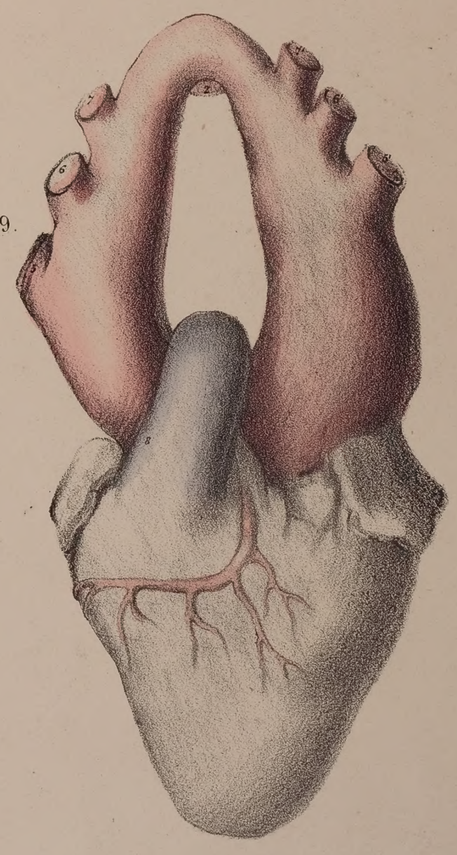

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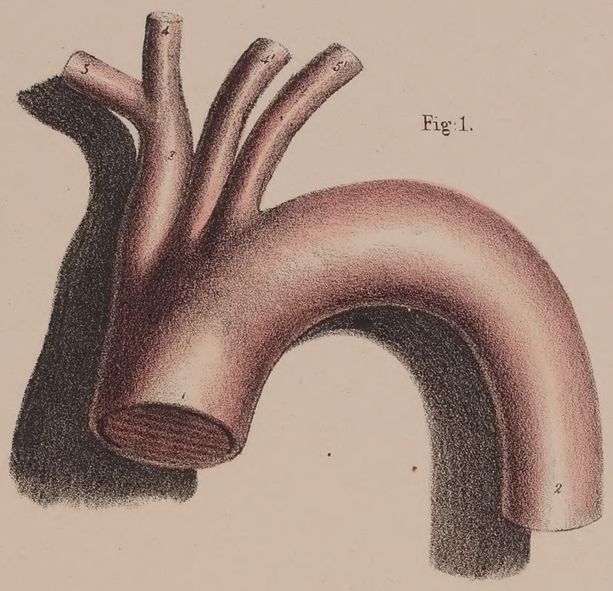

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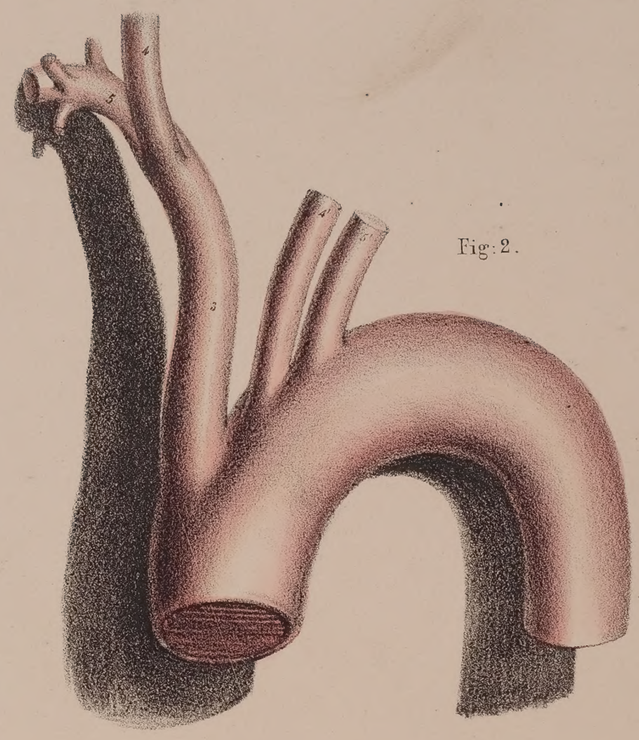

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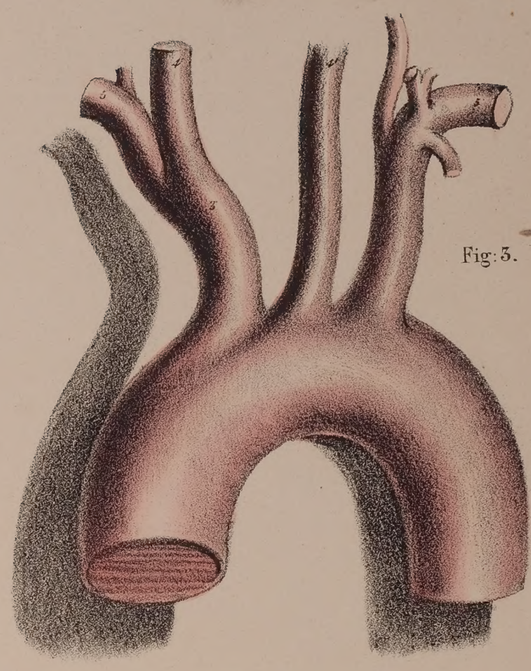

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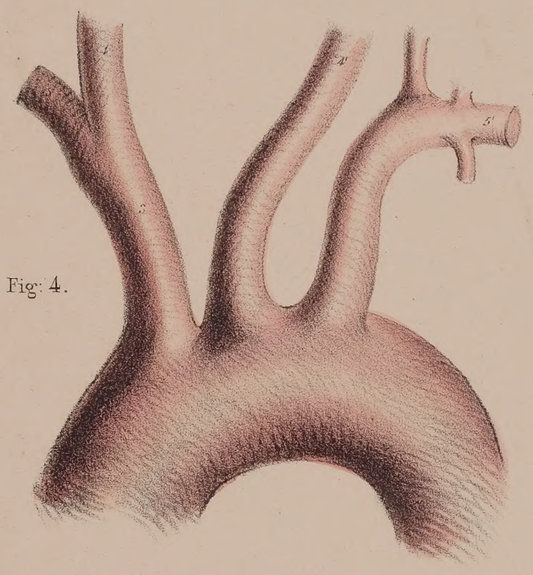

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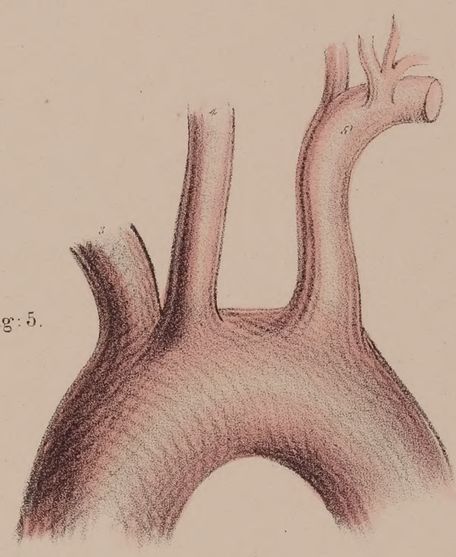

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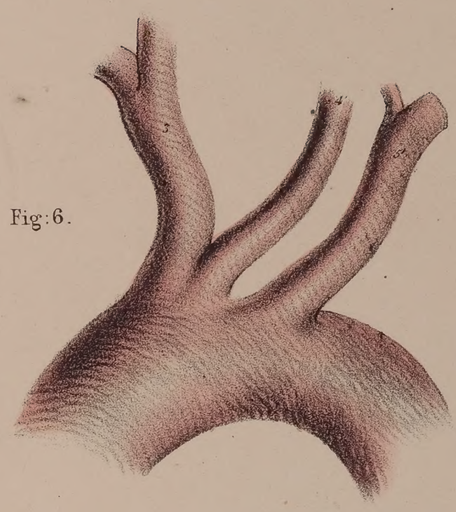

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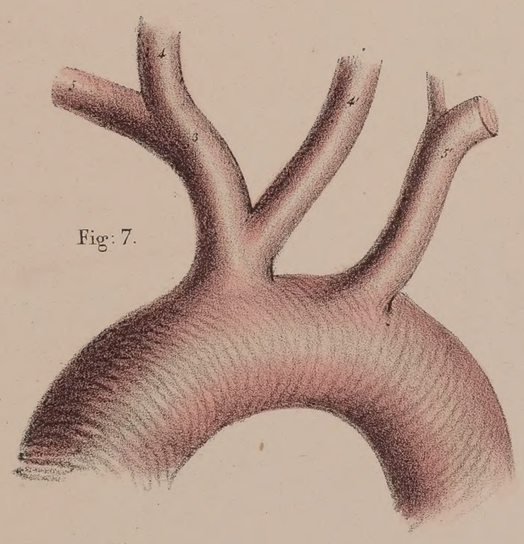

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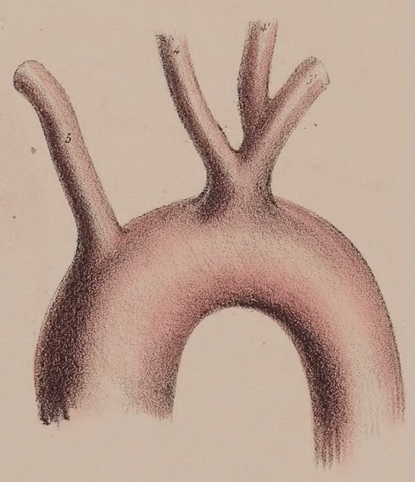

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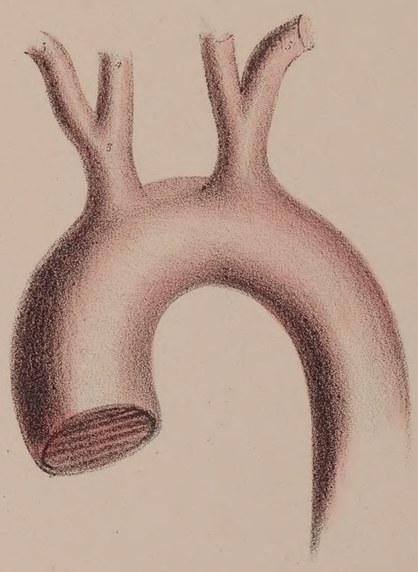

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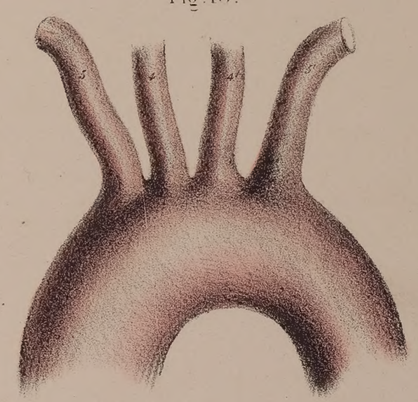

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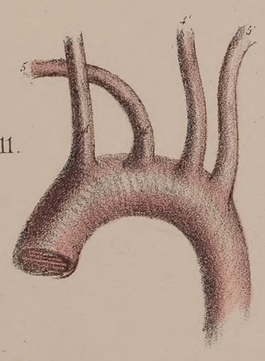

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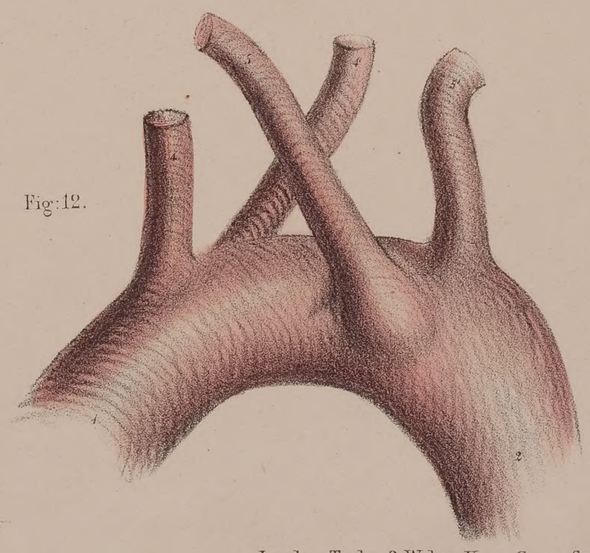

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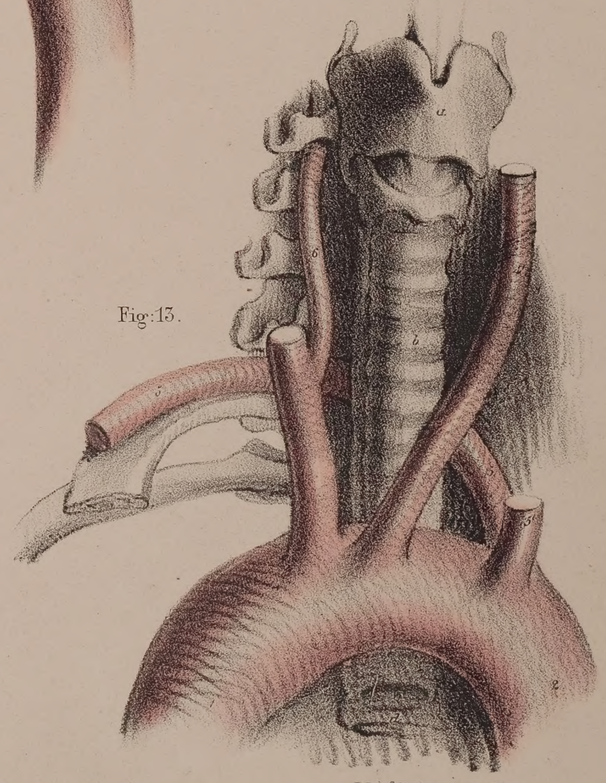

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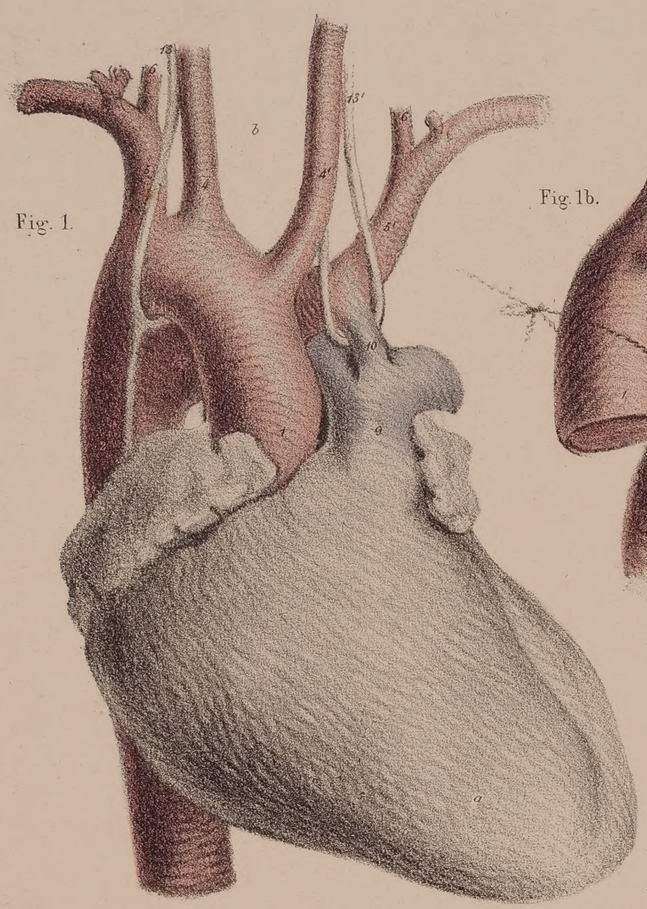

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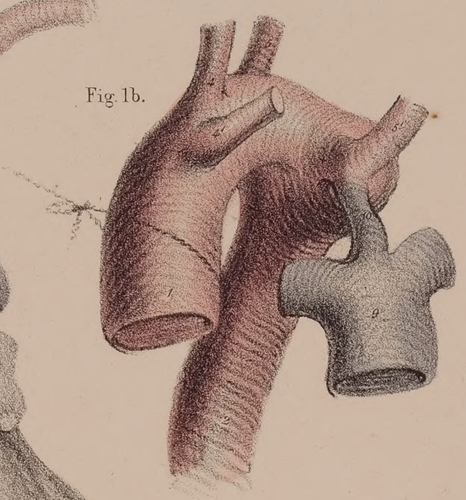

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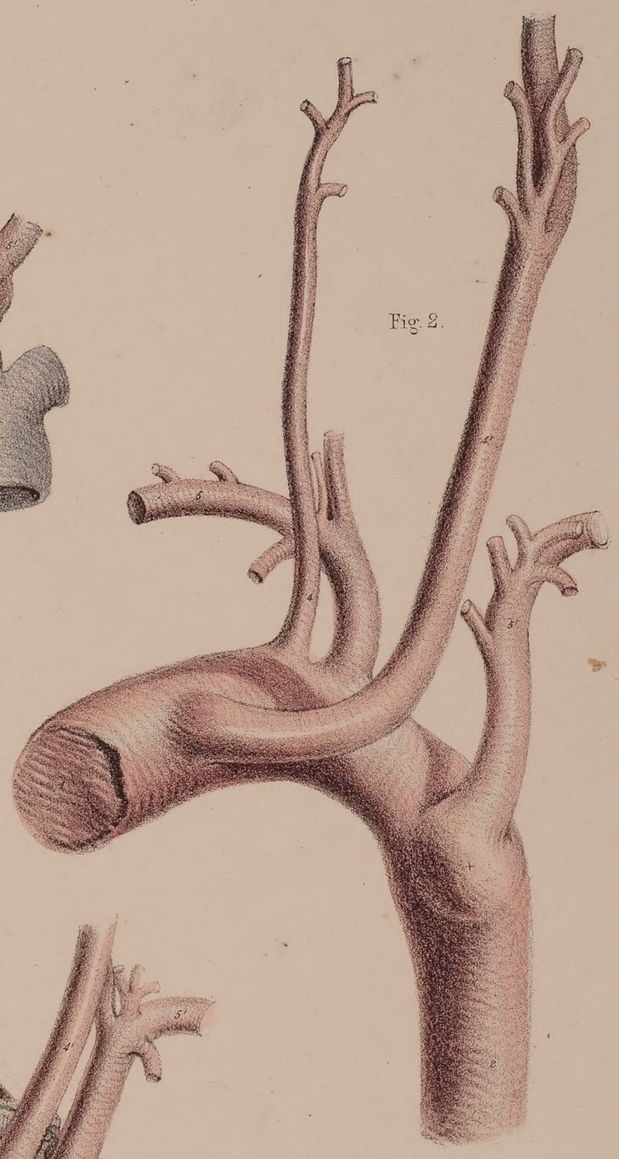

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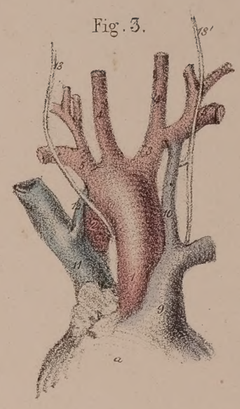

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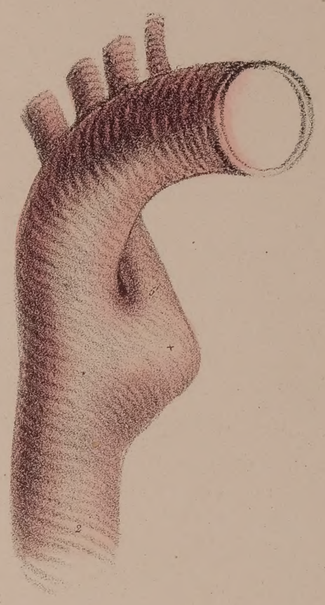

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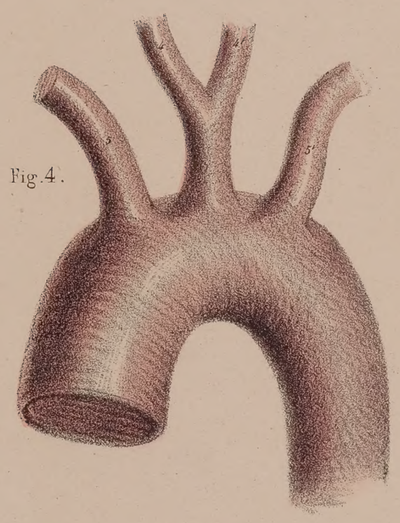

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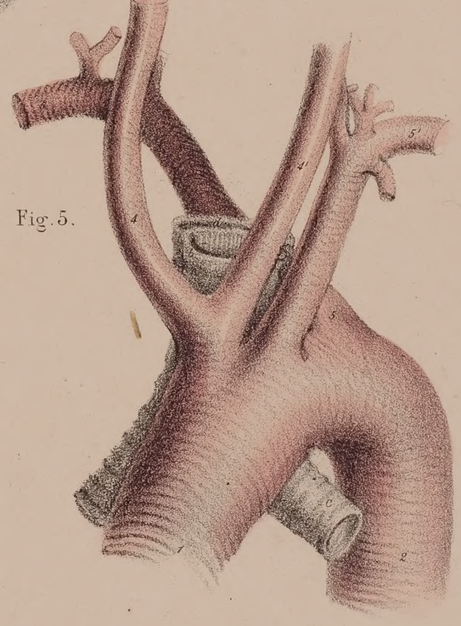

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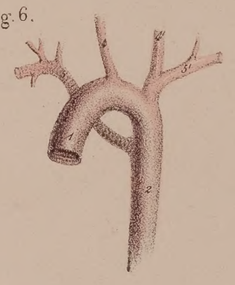

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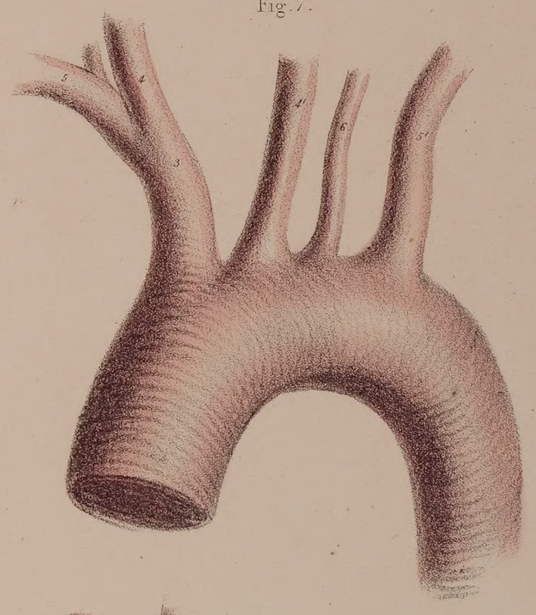

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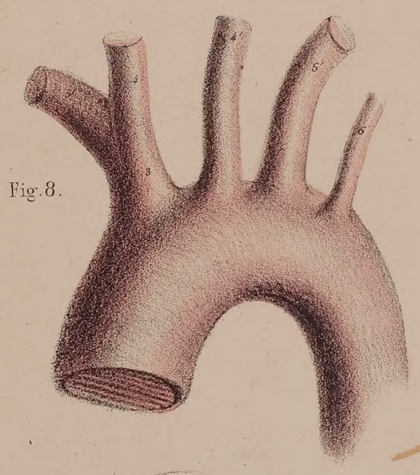

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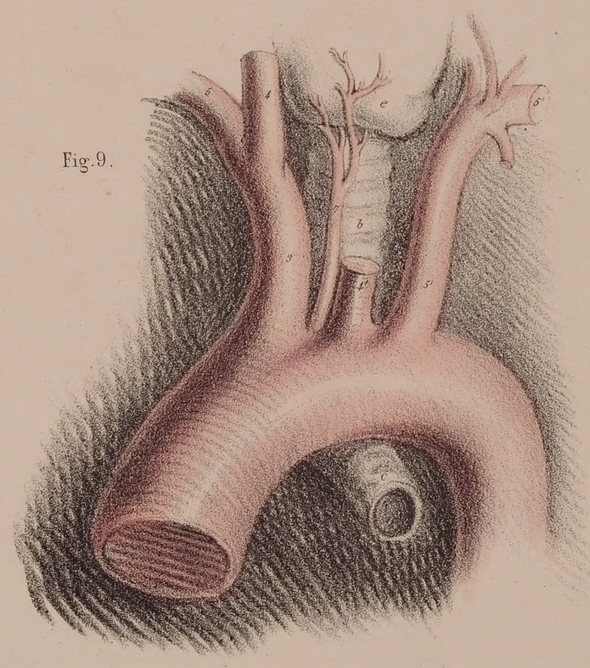

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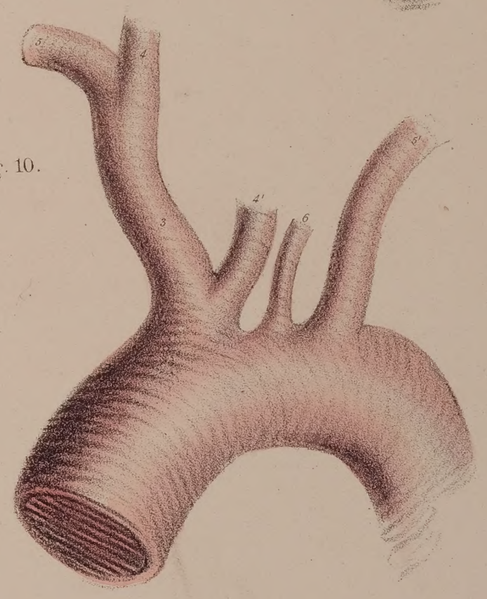

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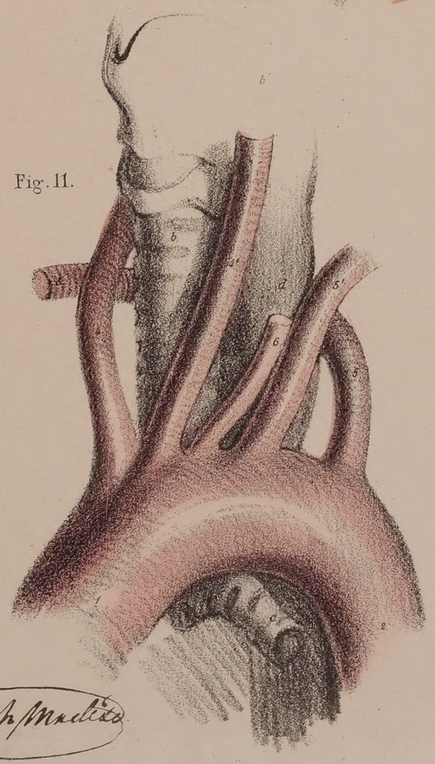

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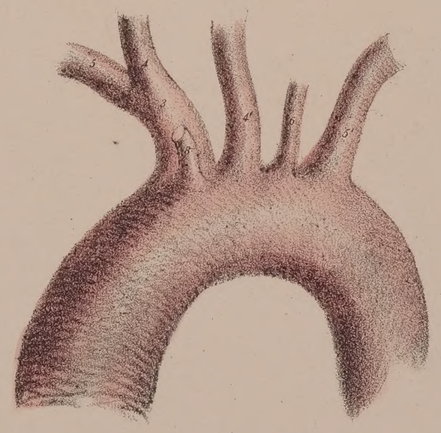

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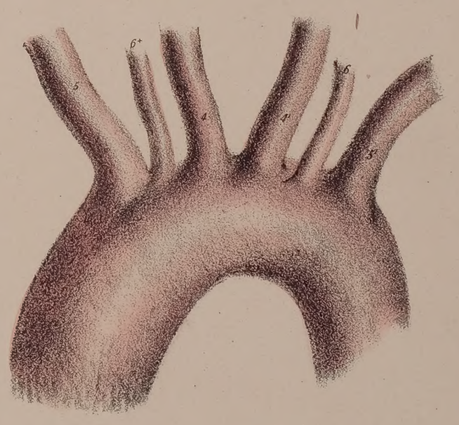

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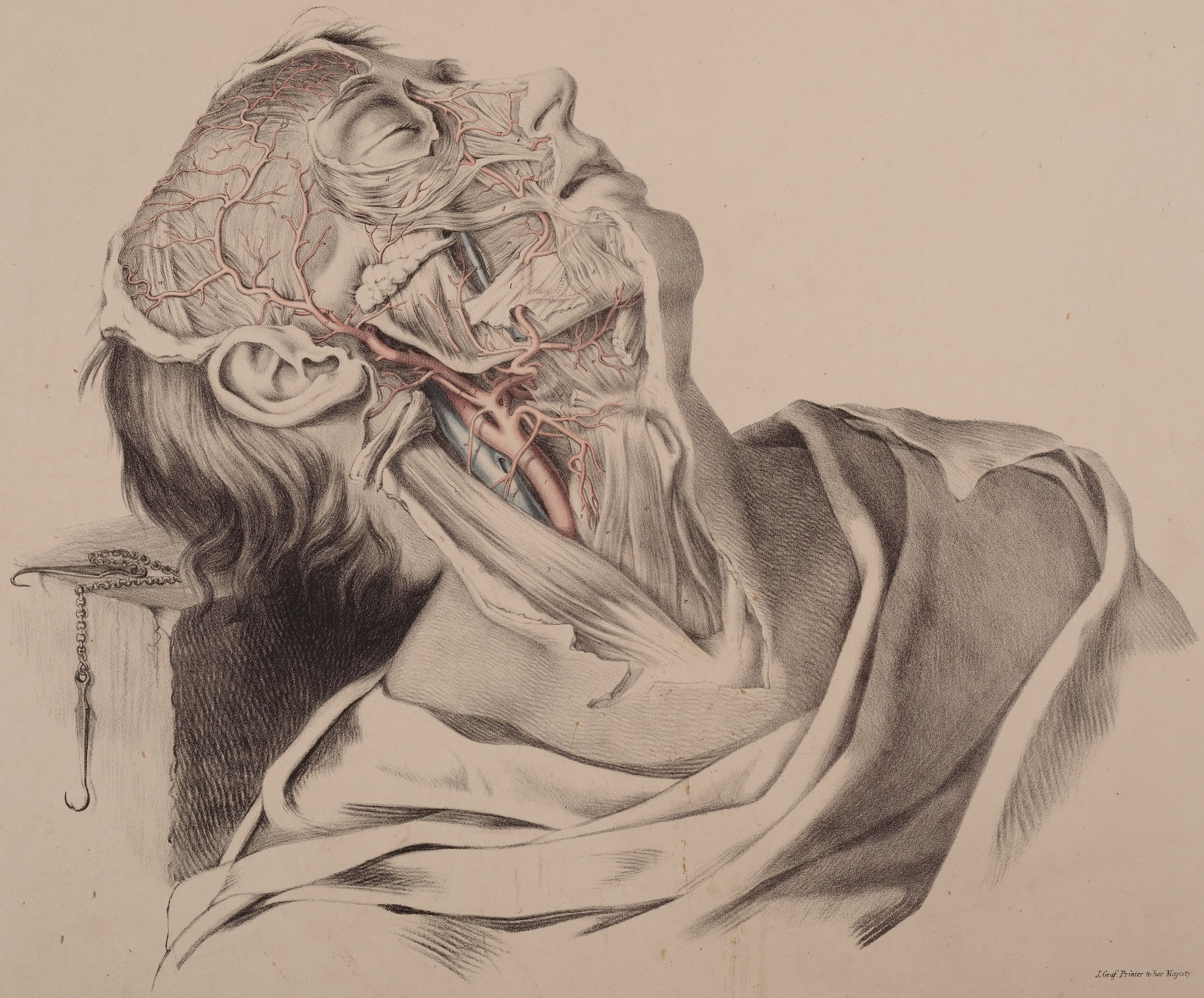

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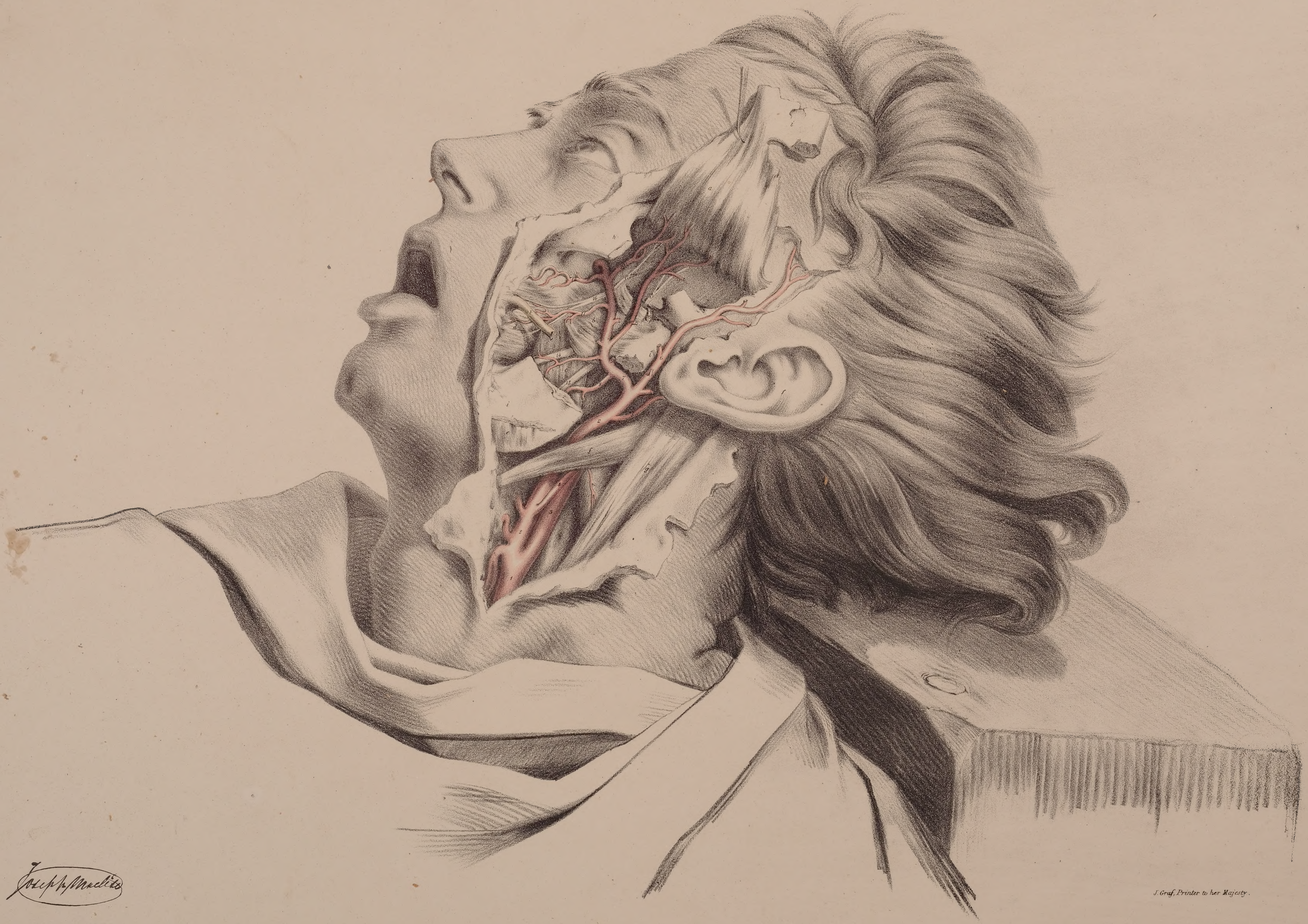

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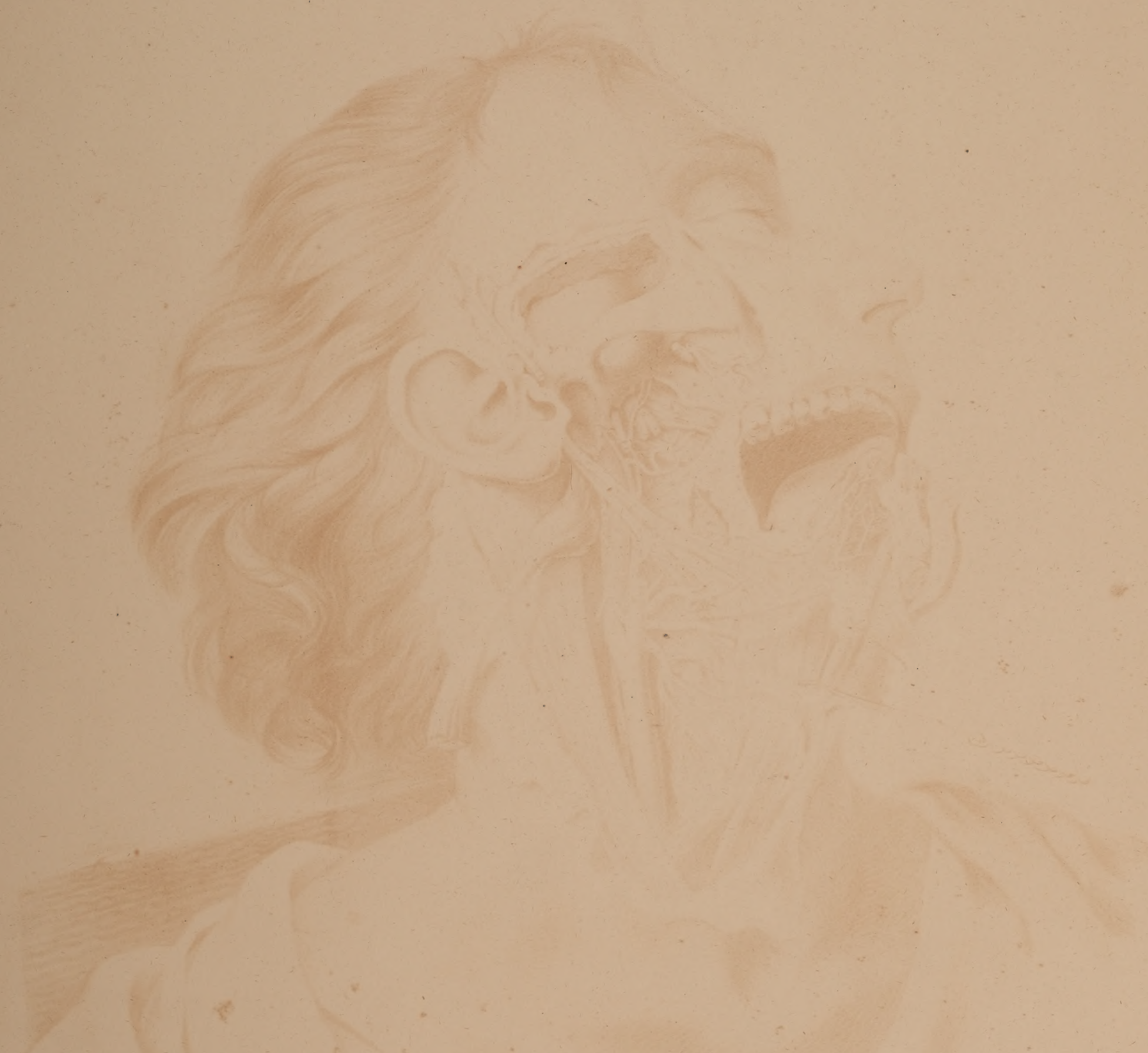

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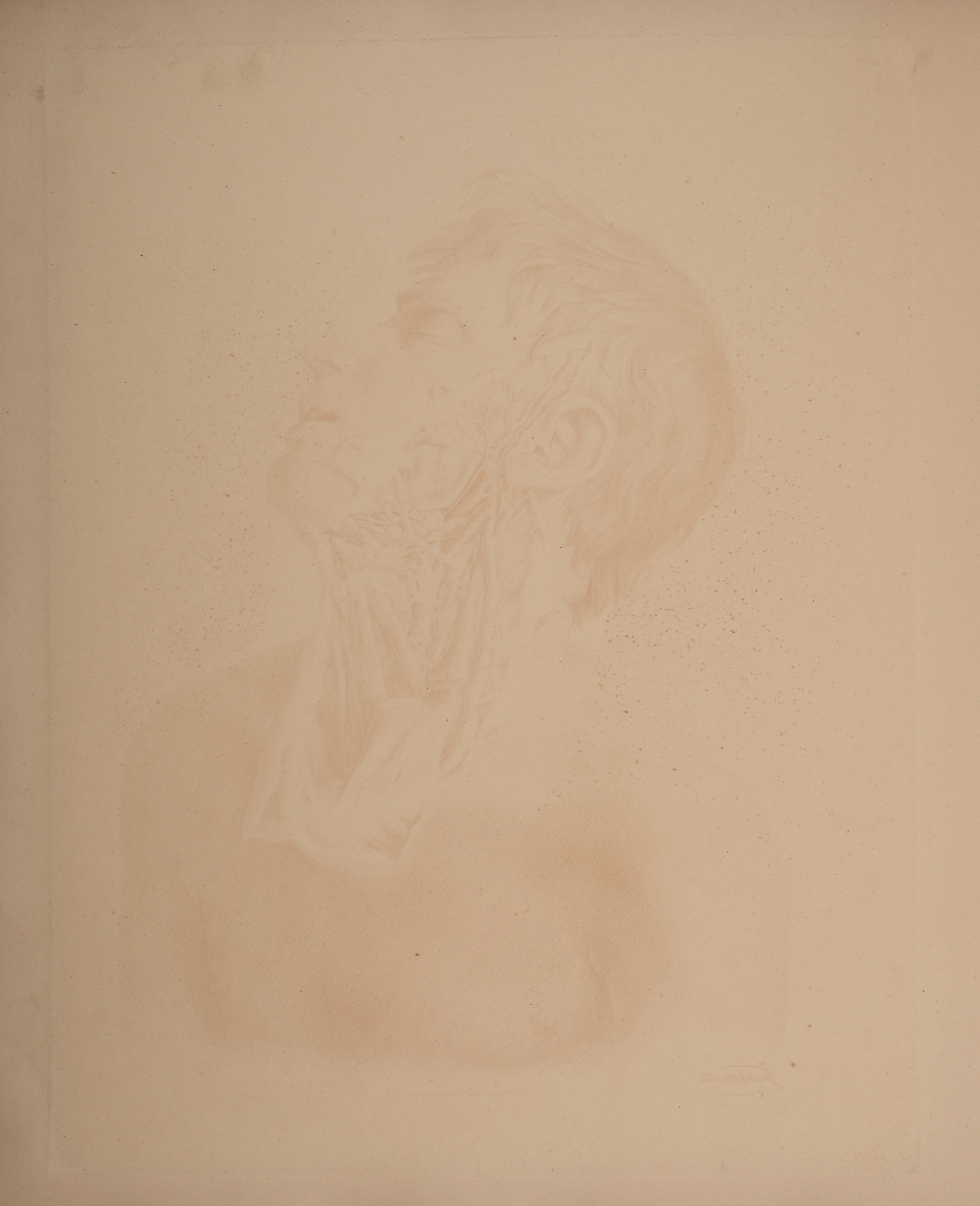

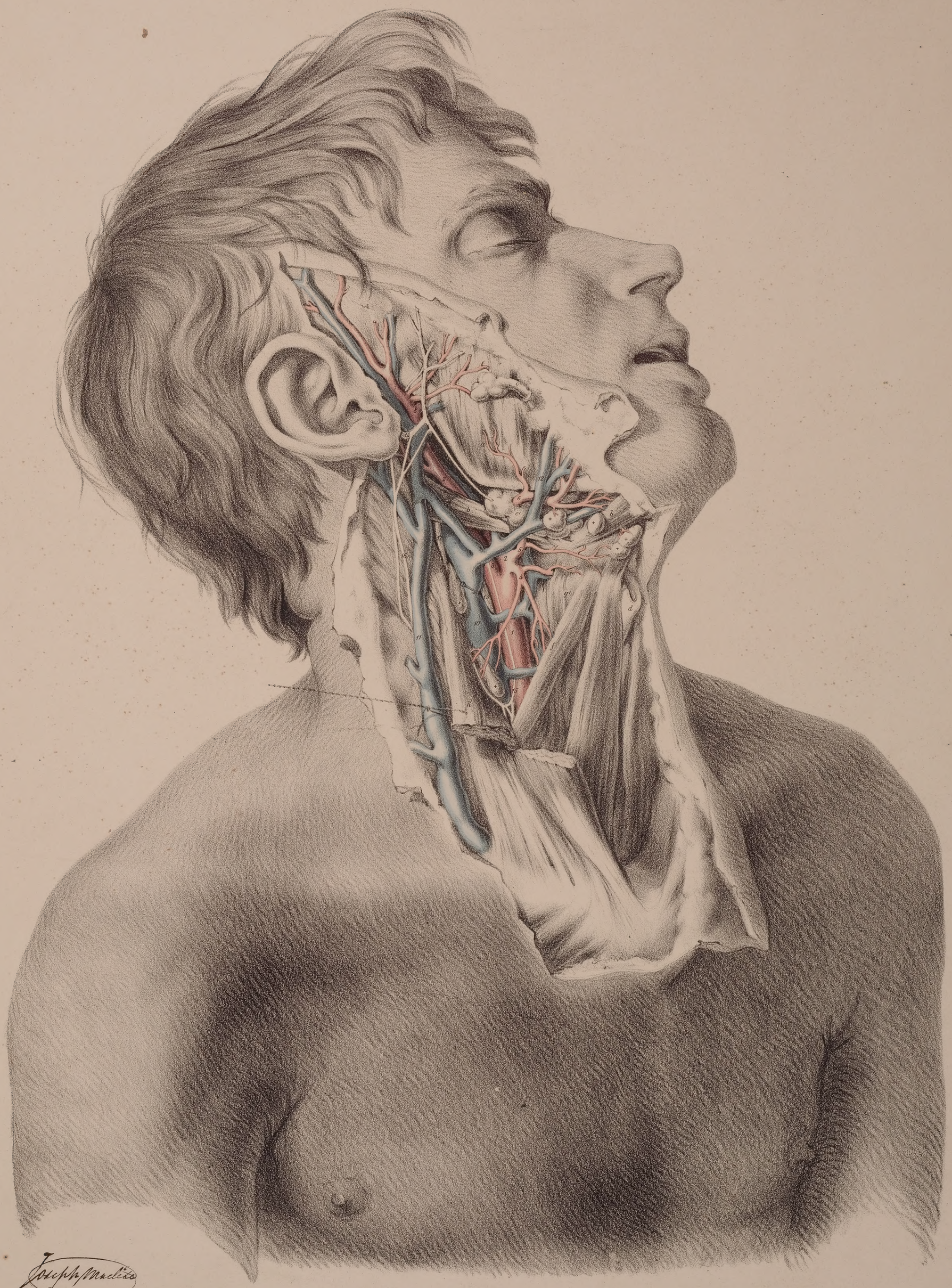

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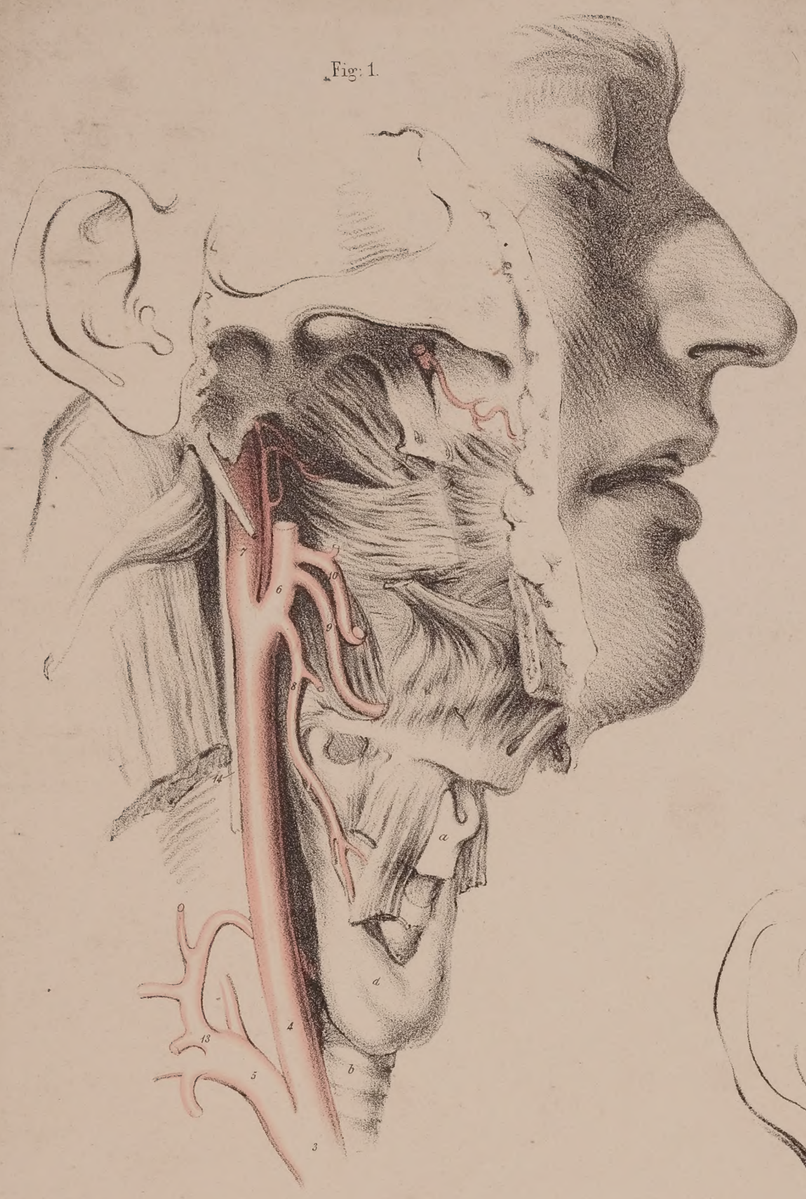

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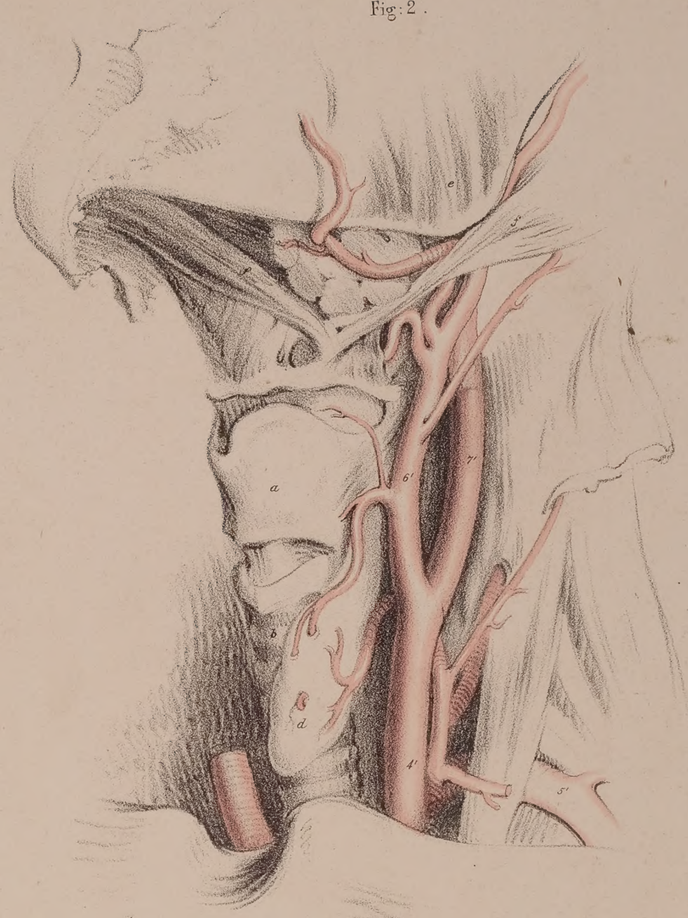

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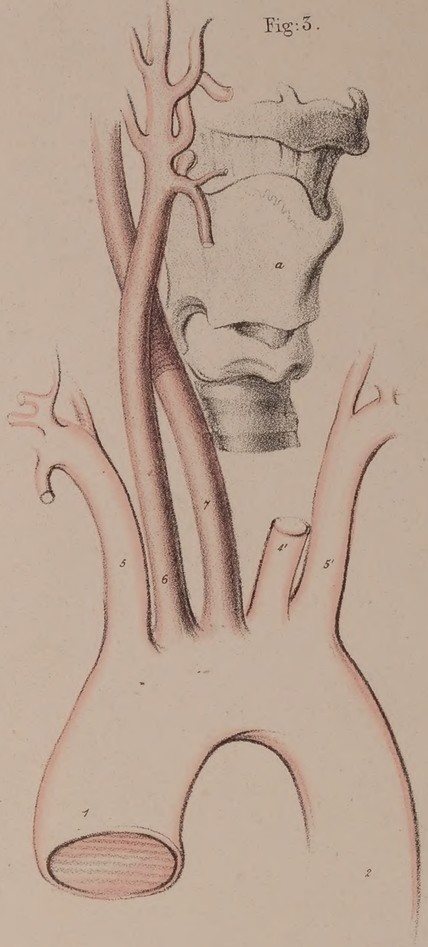

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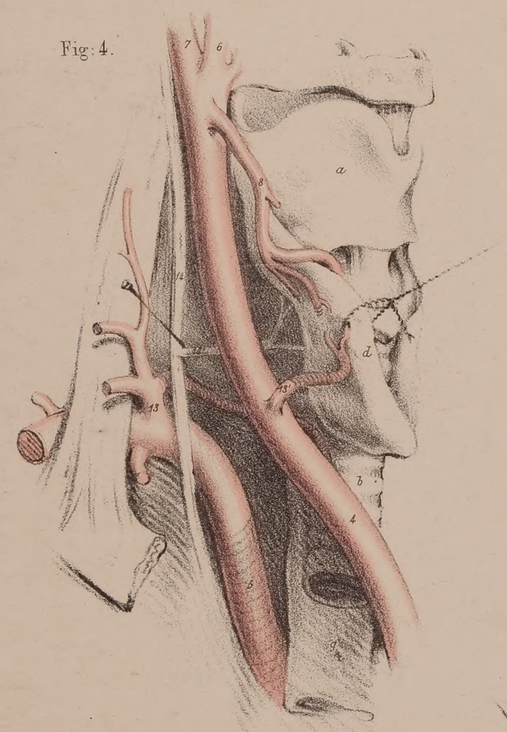

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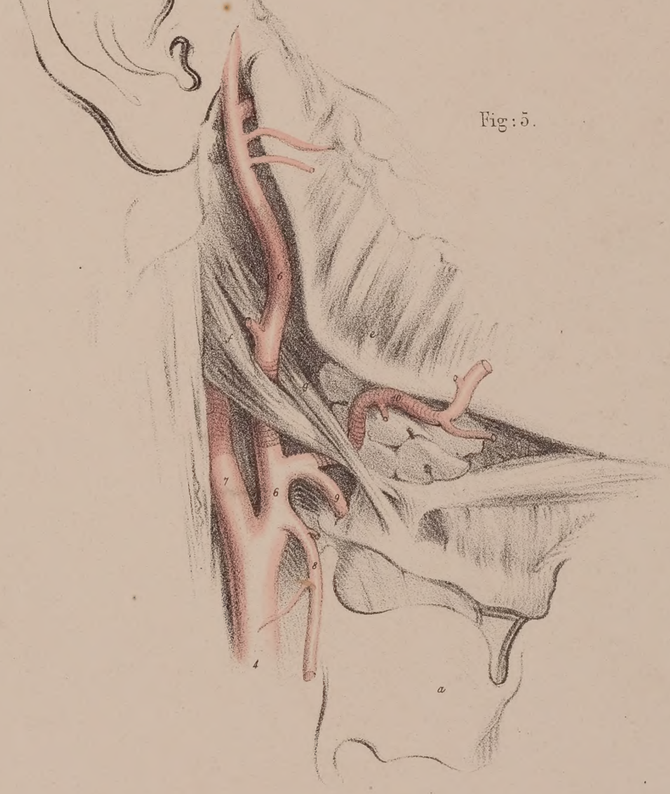

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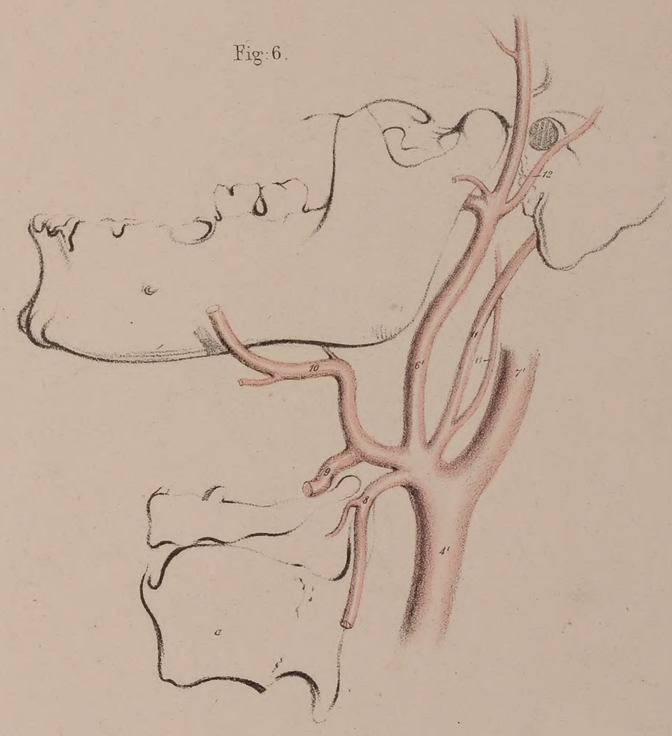

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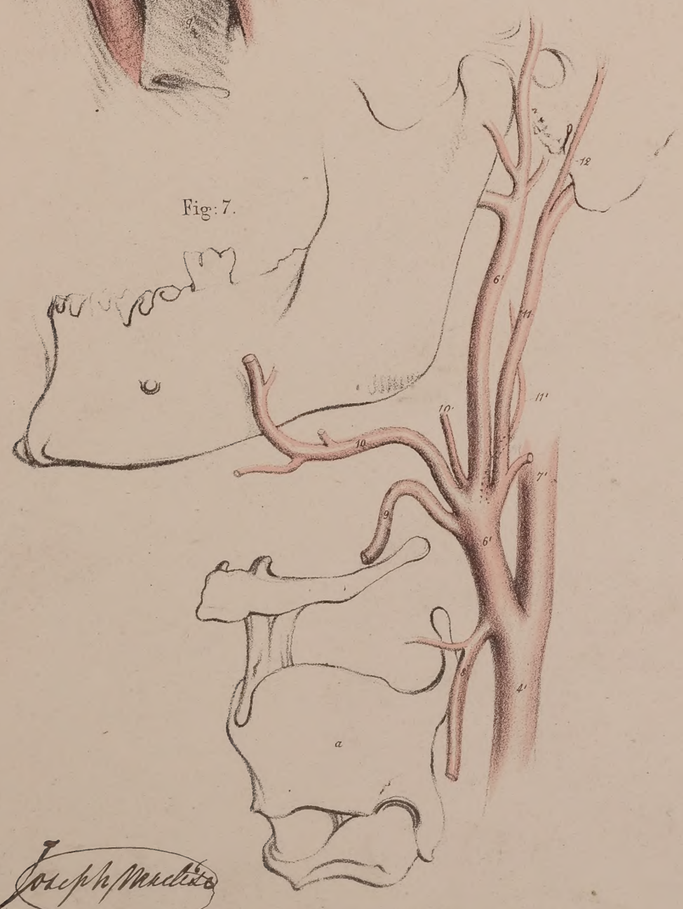

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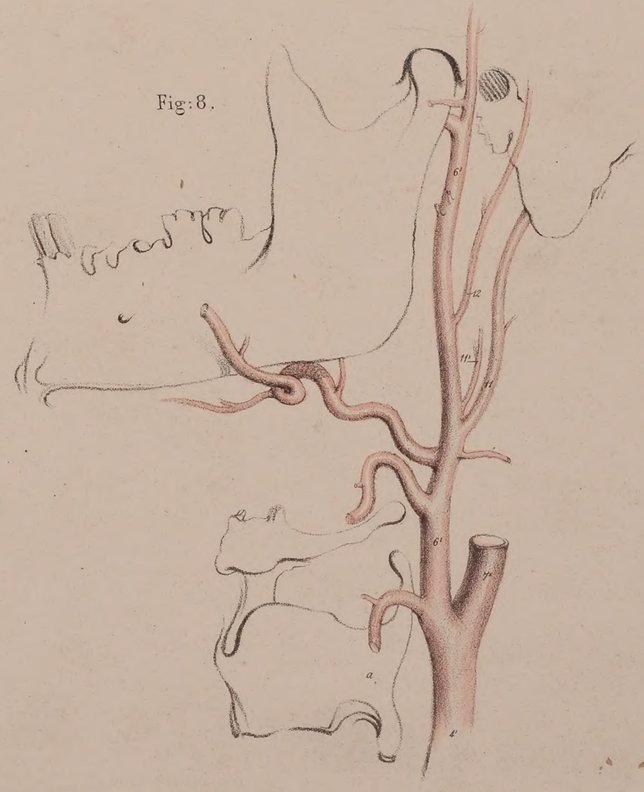

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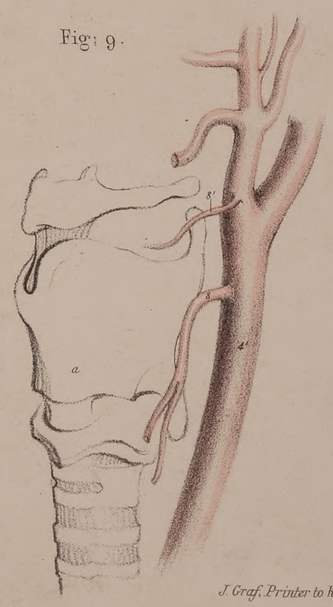

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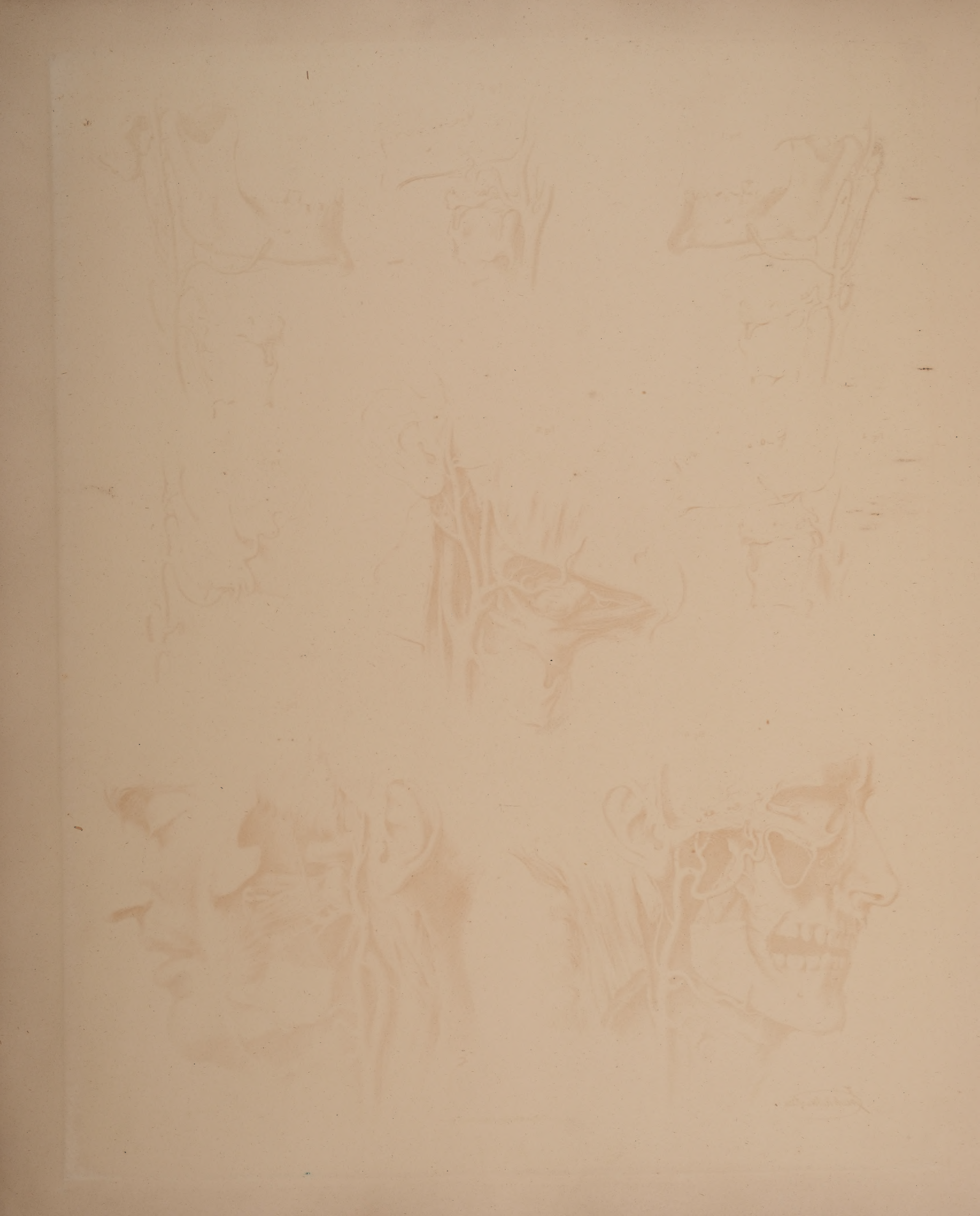

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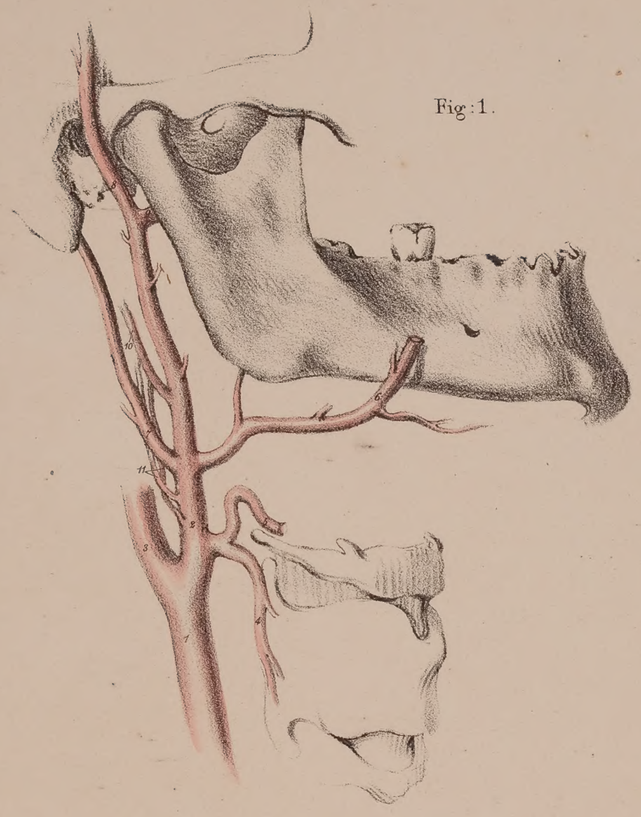

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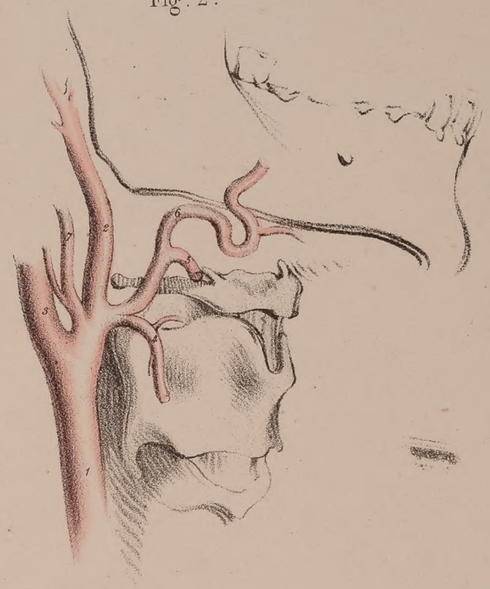

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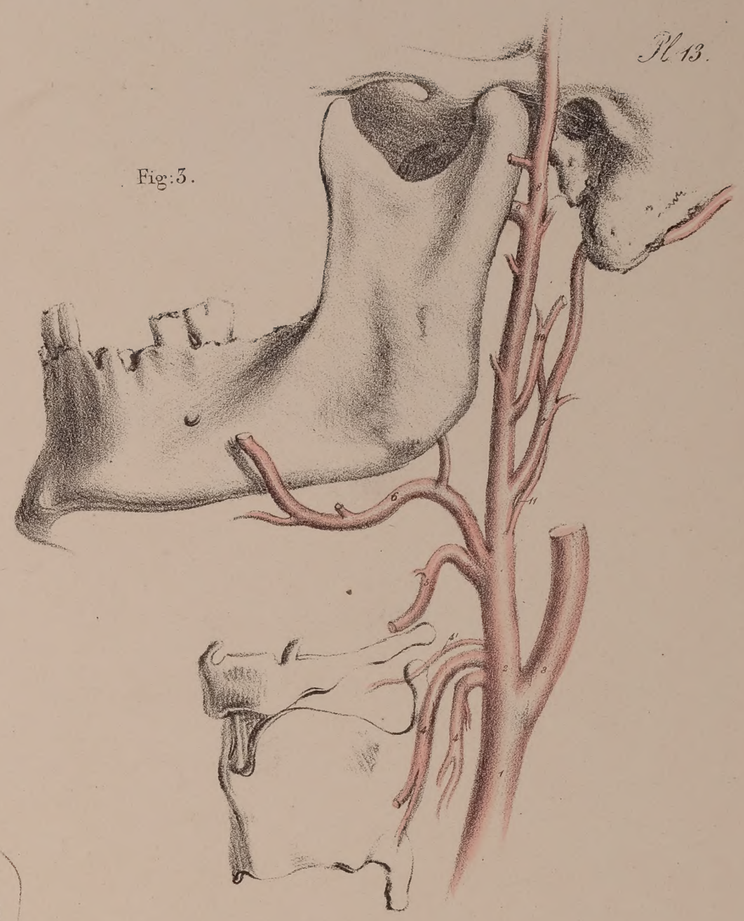

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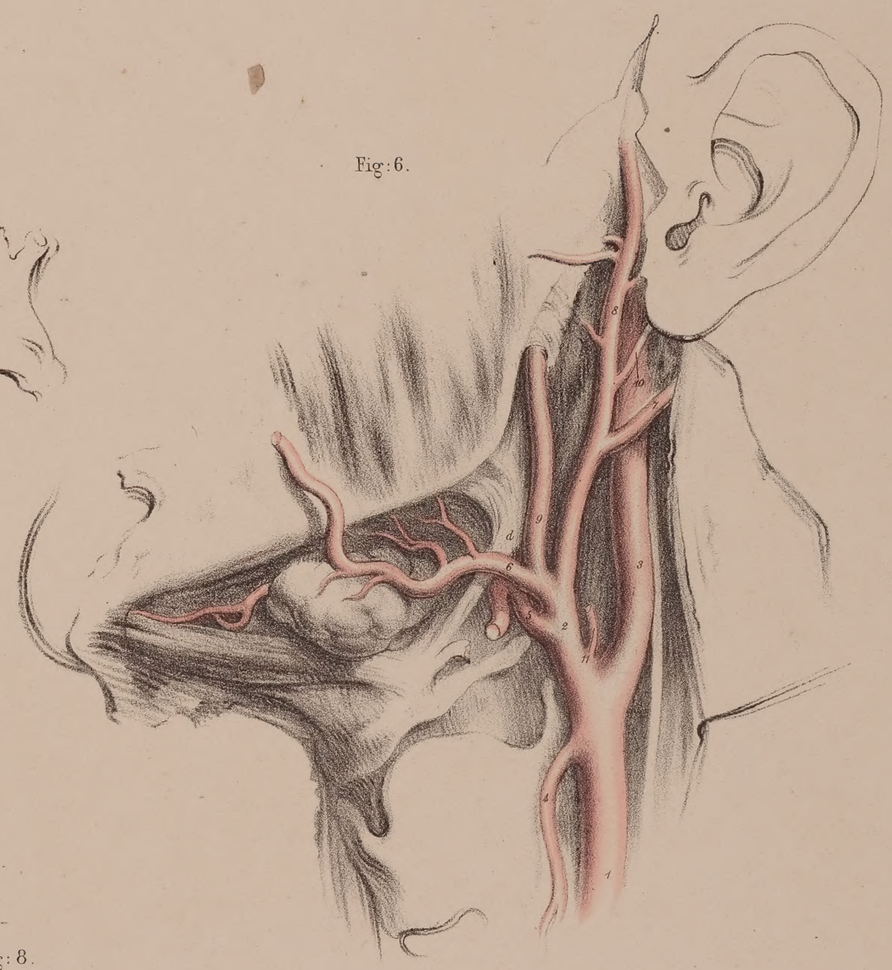

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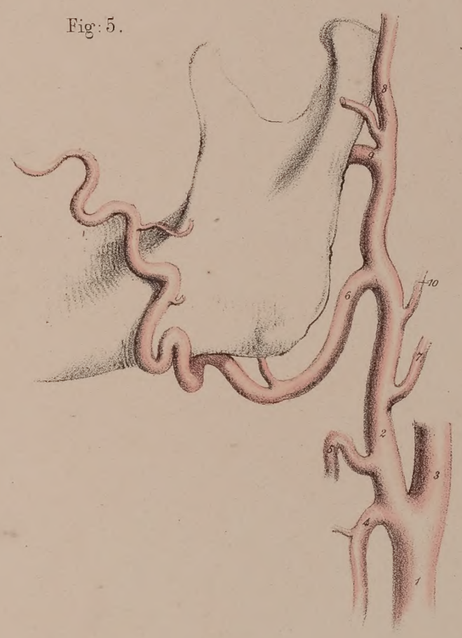

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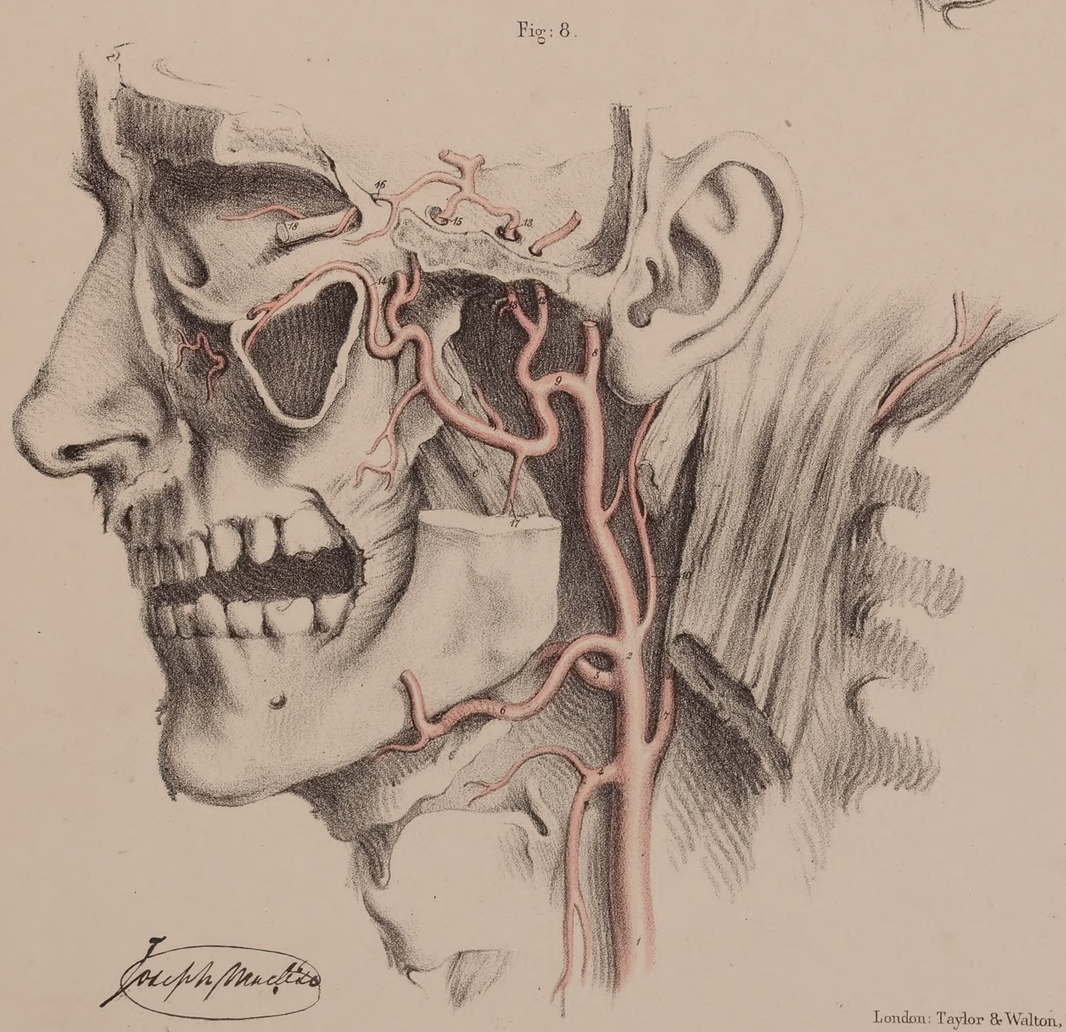

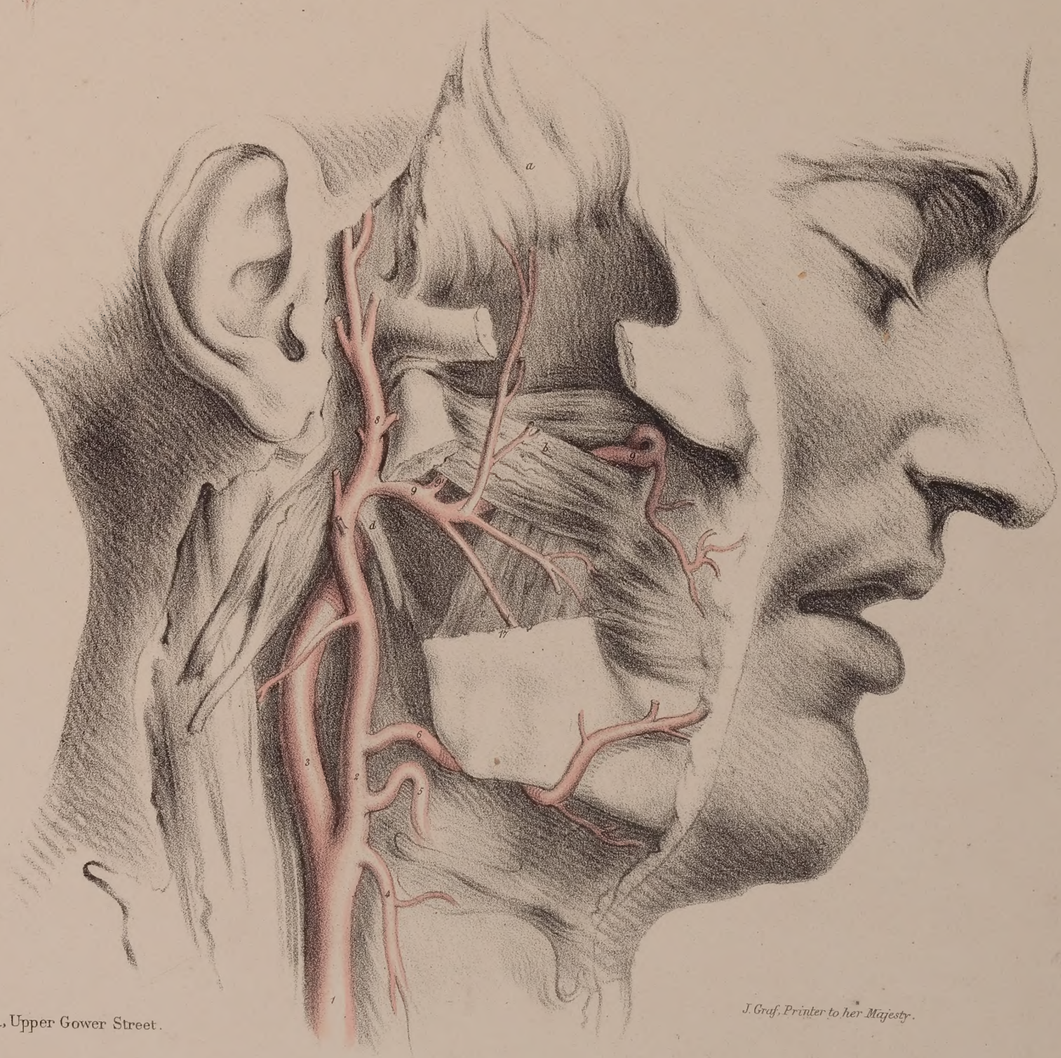

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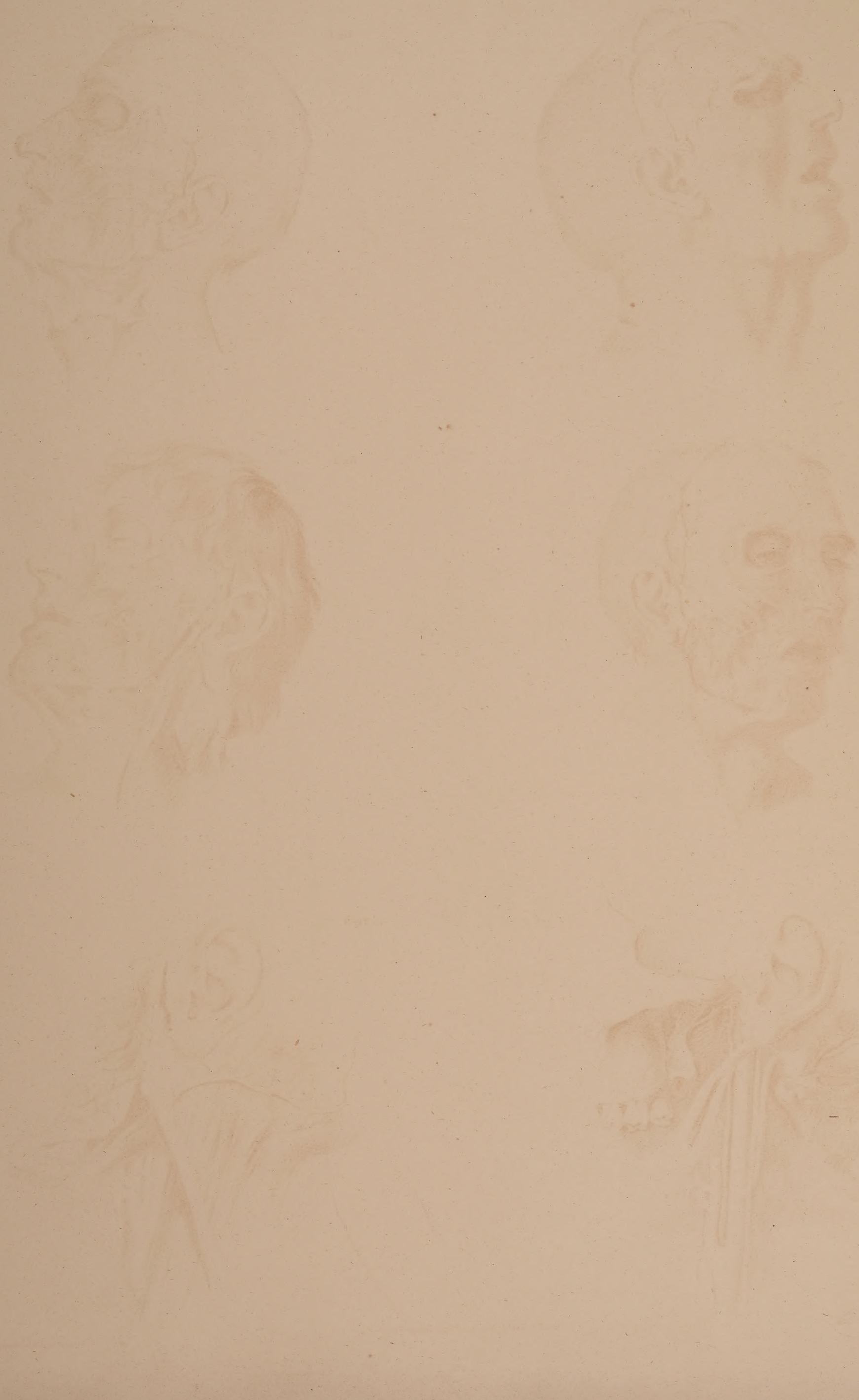

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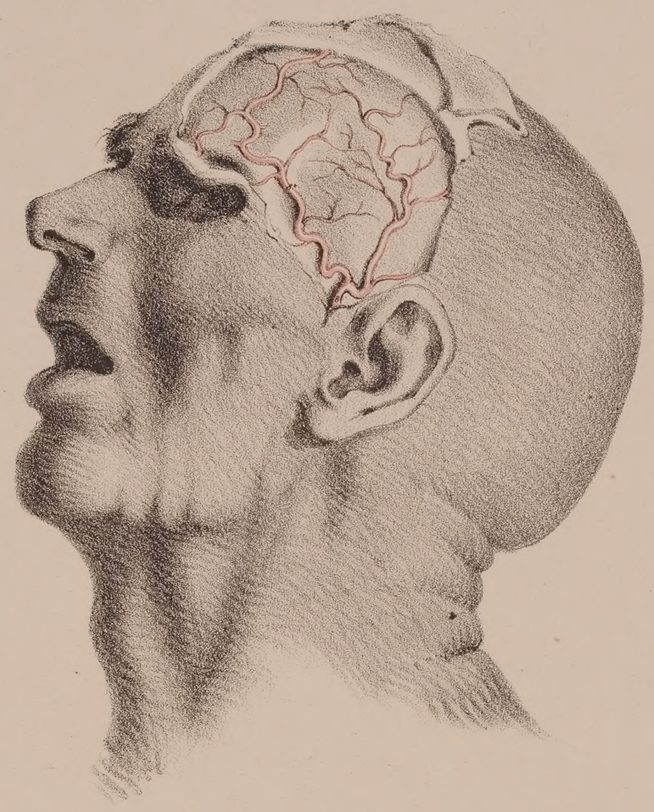

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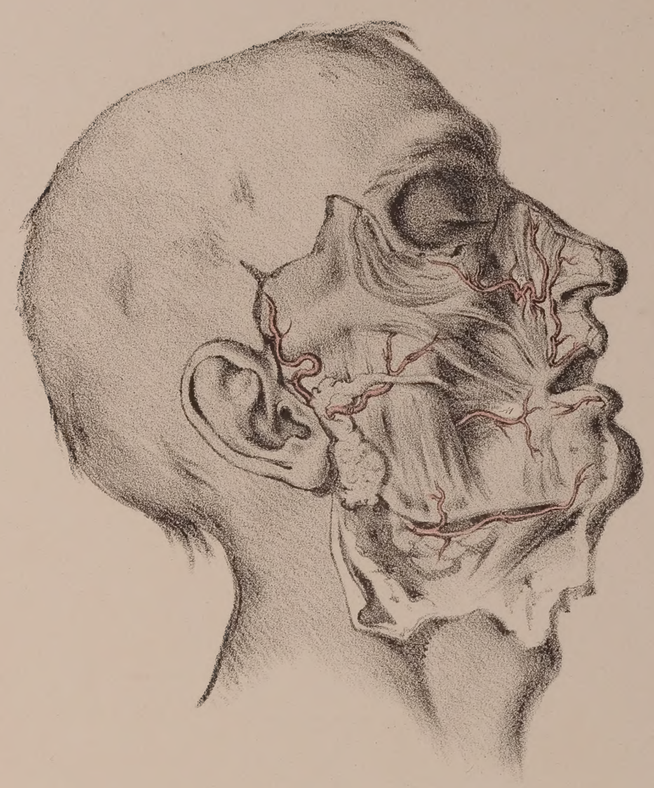

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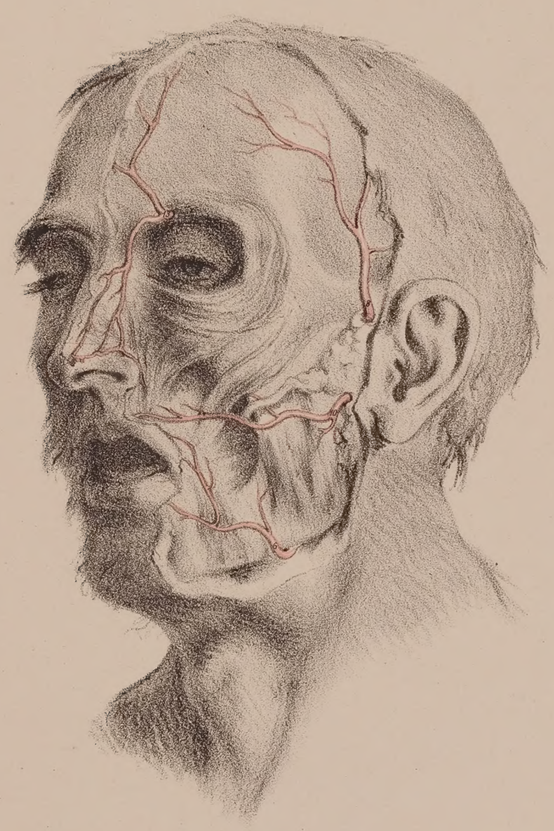

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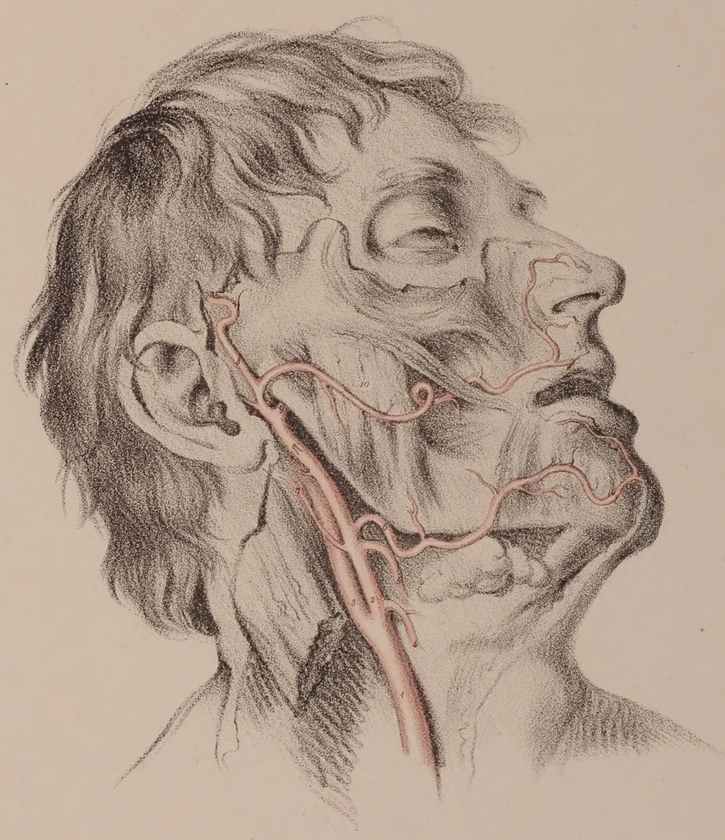

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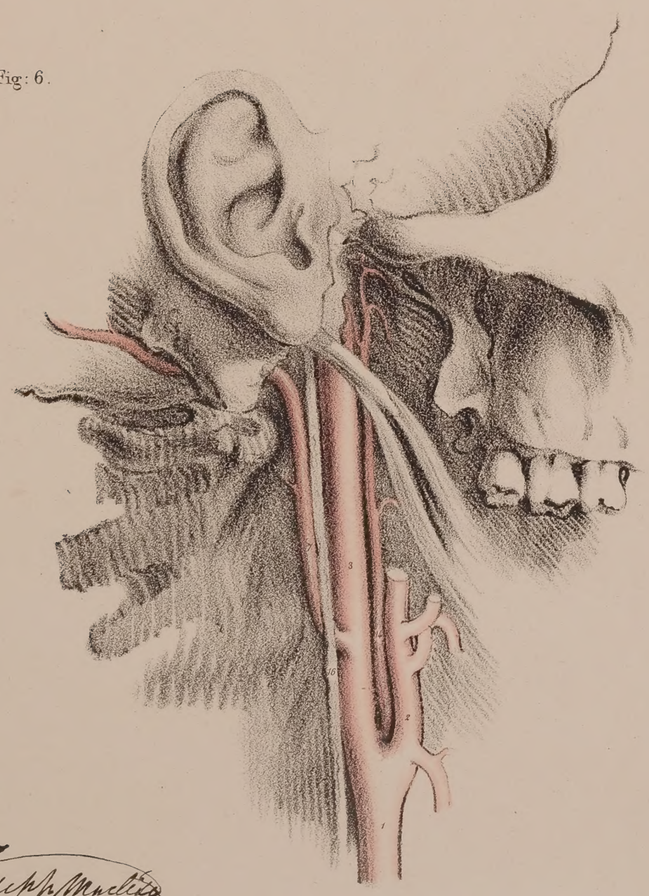

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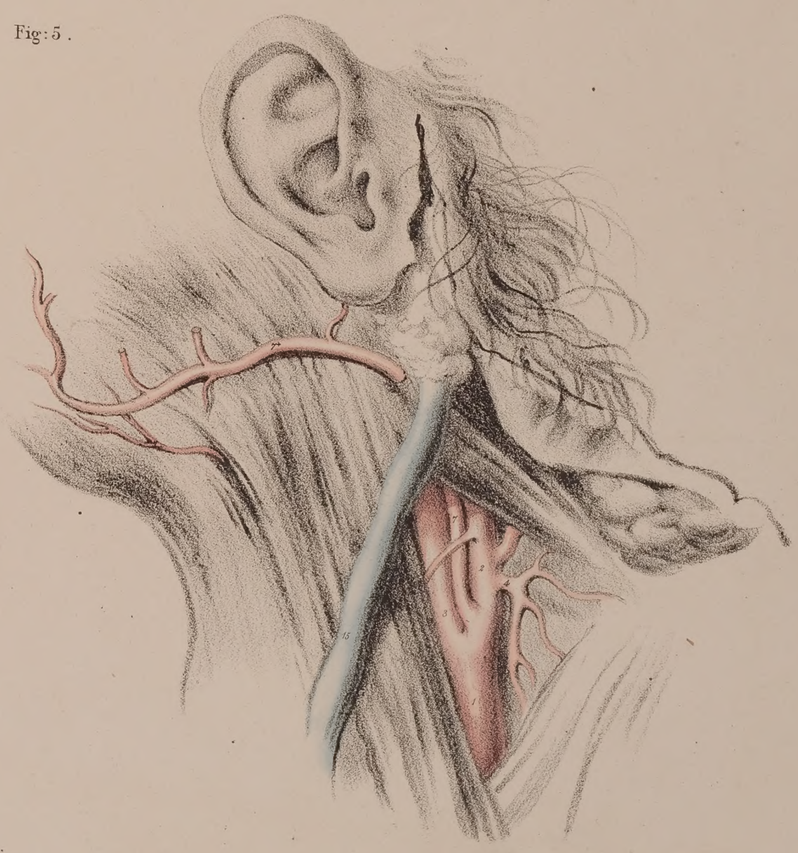

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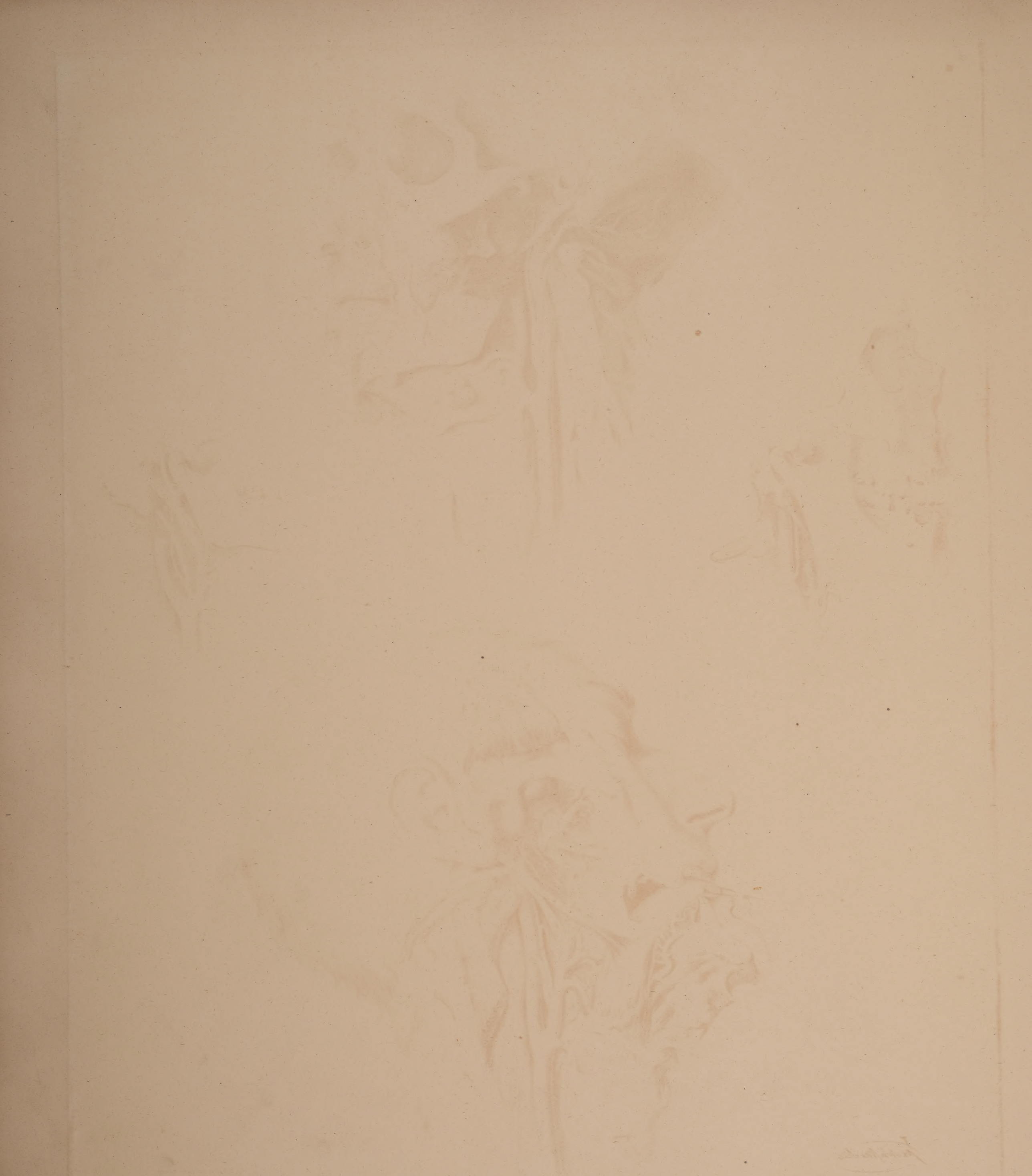

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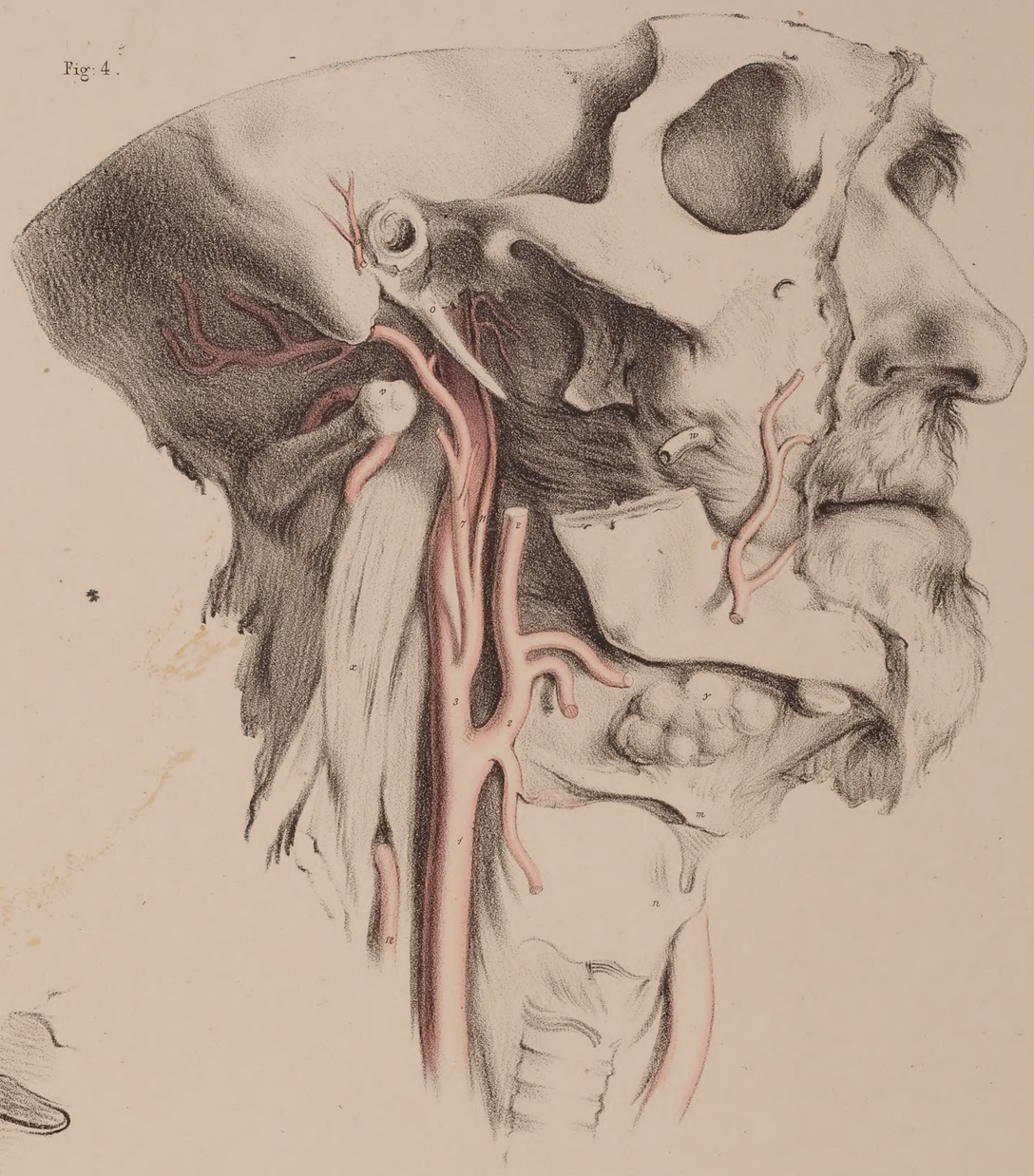

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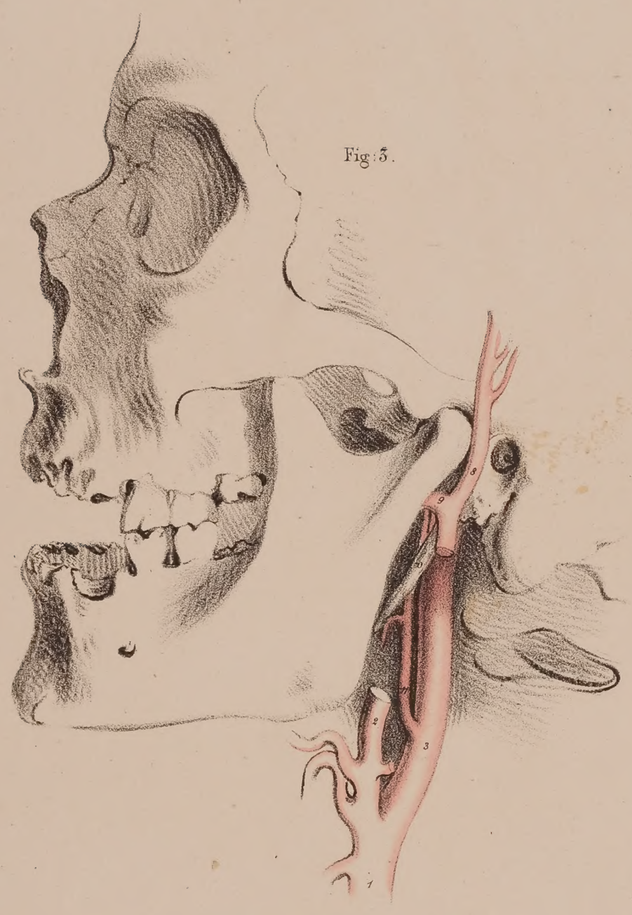

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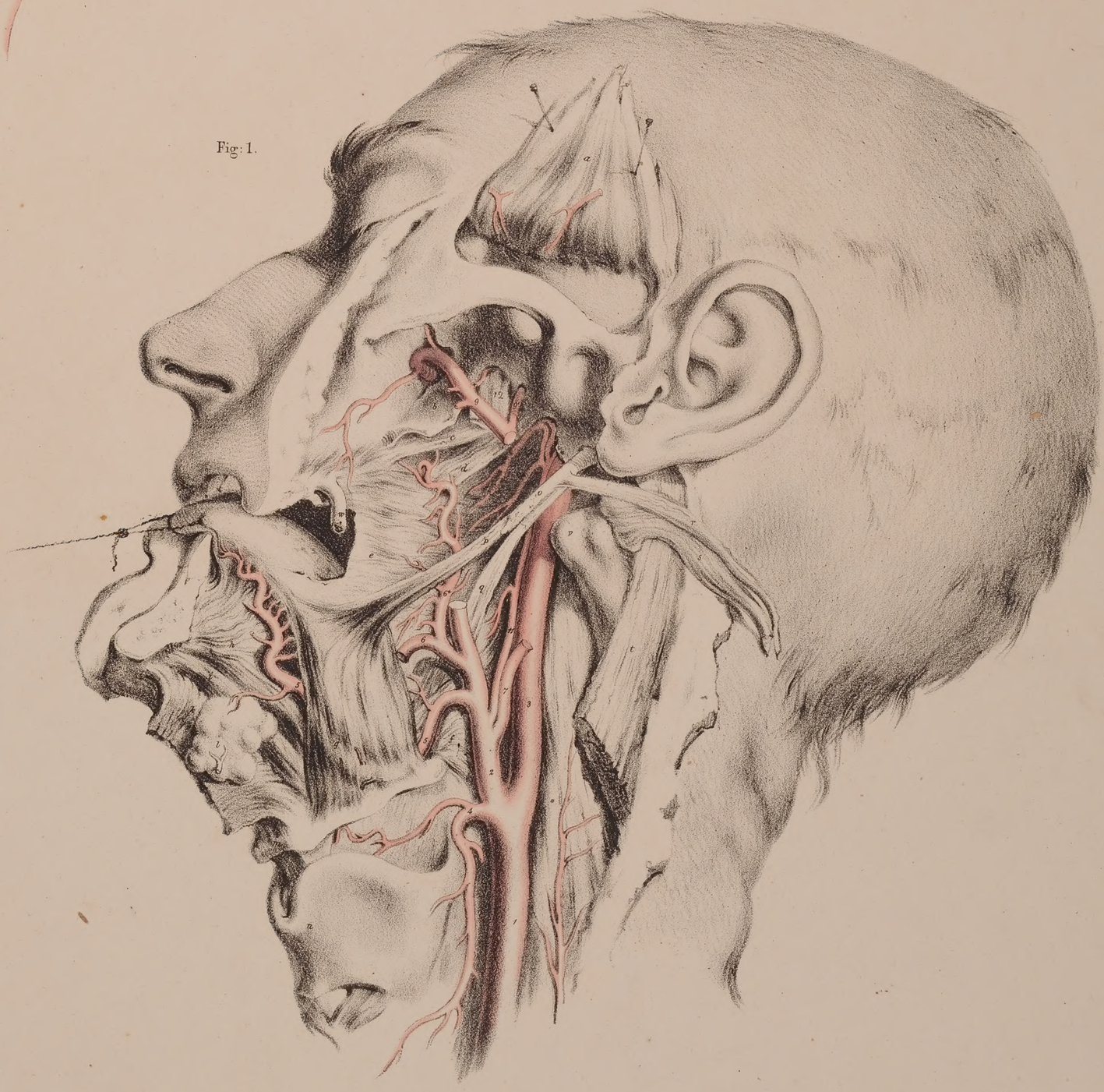

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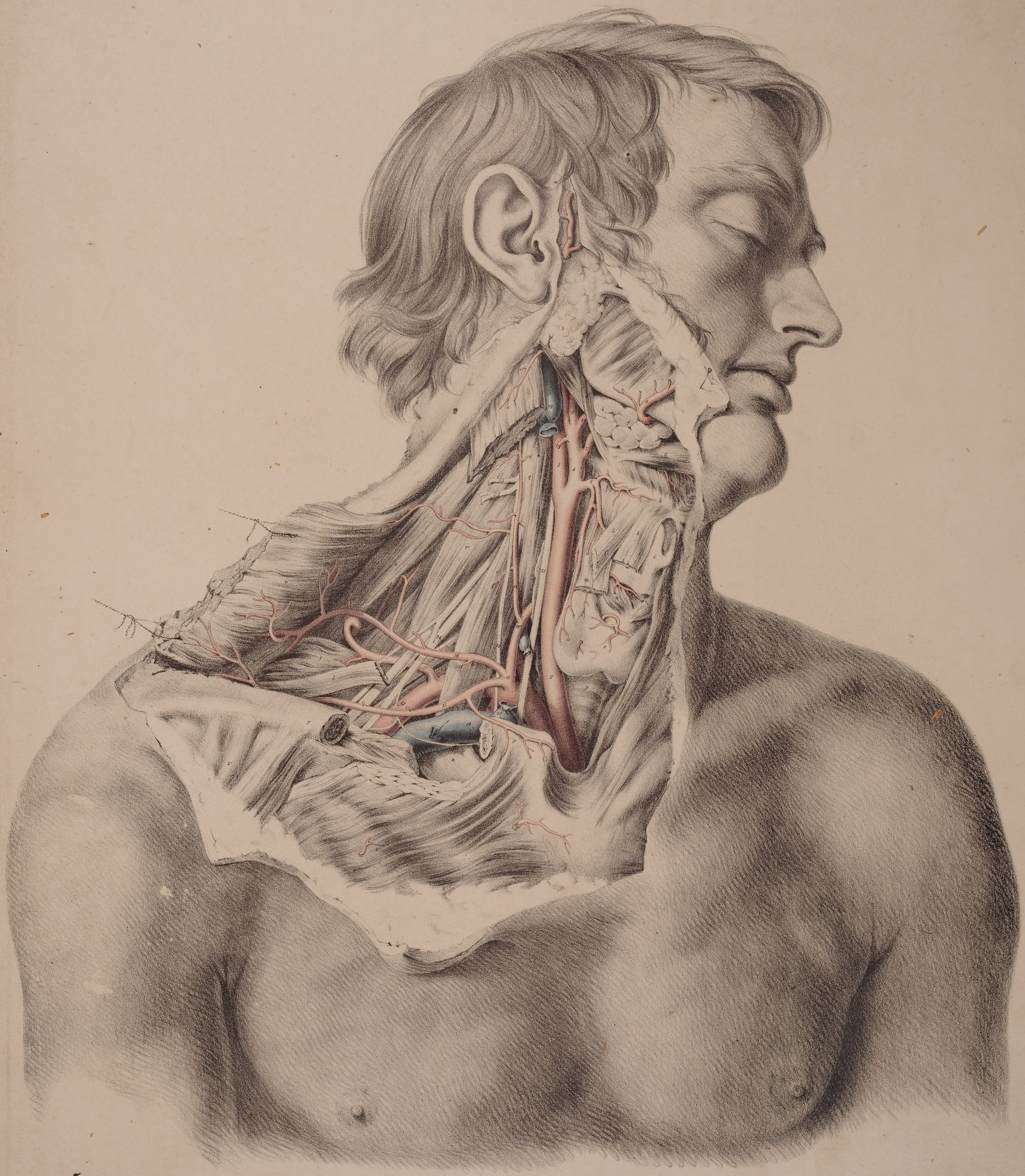
Pl. 16.



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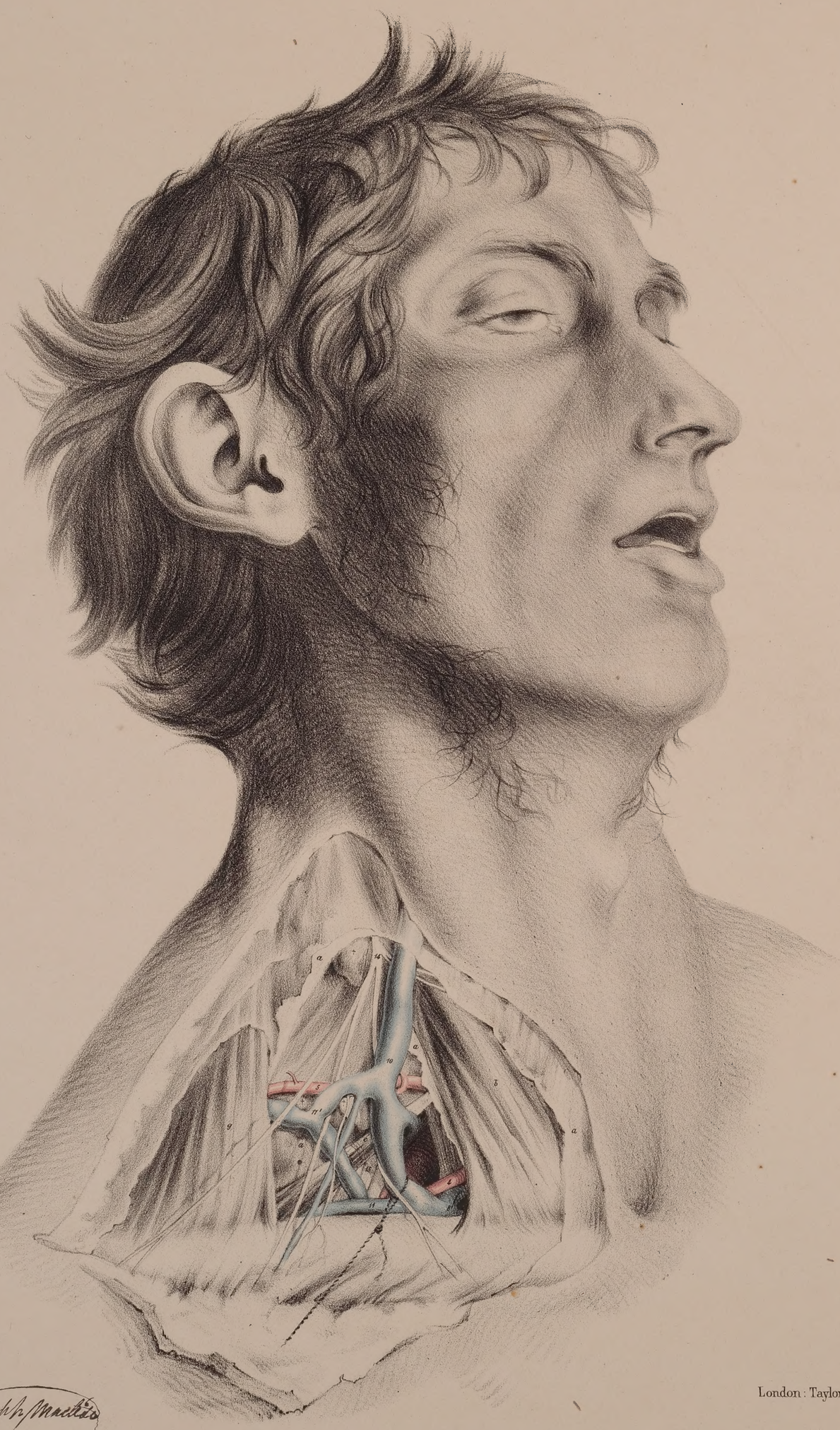
Pl. 17.

Fig: 2.



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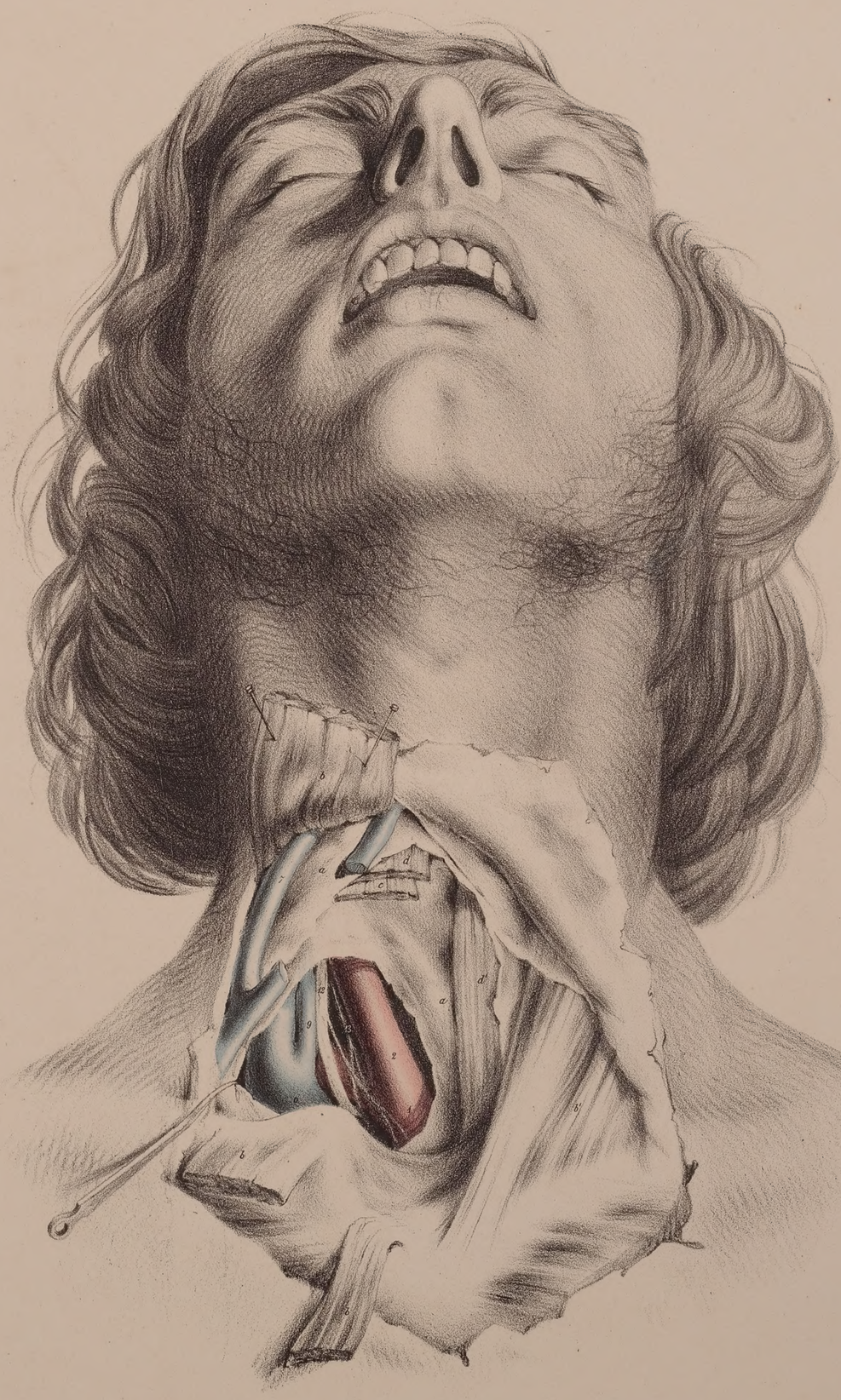

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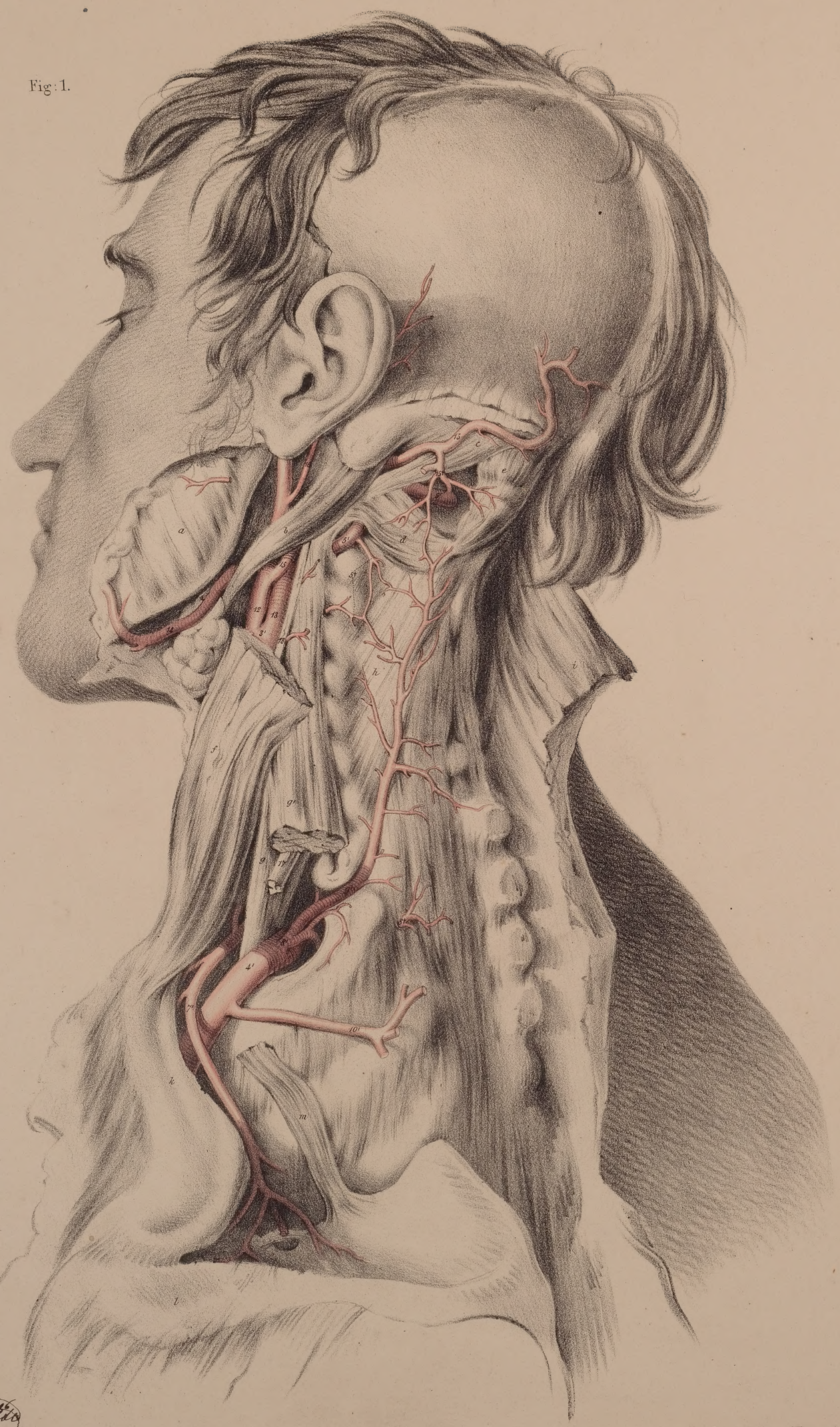

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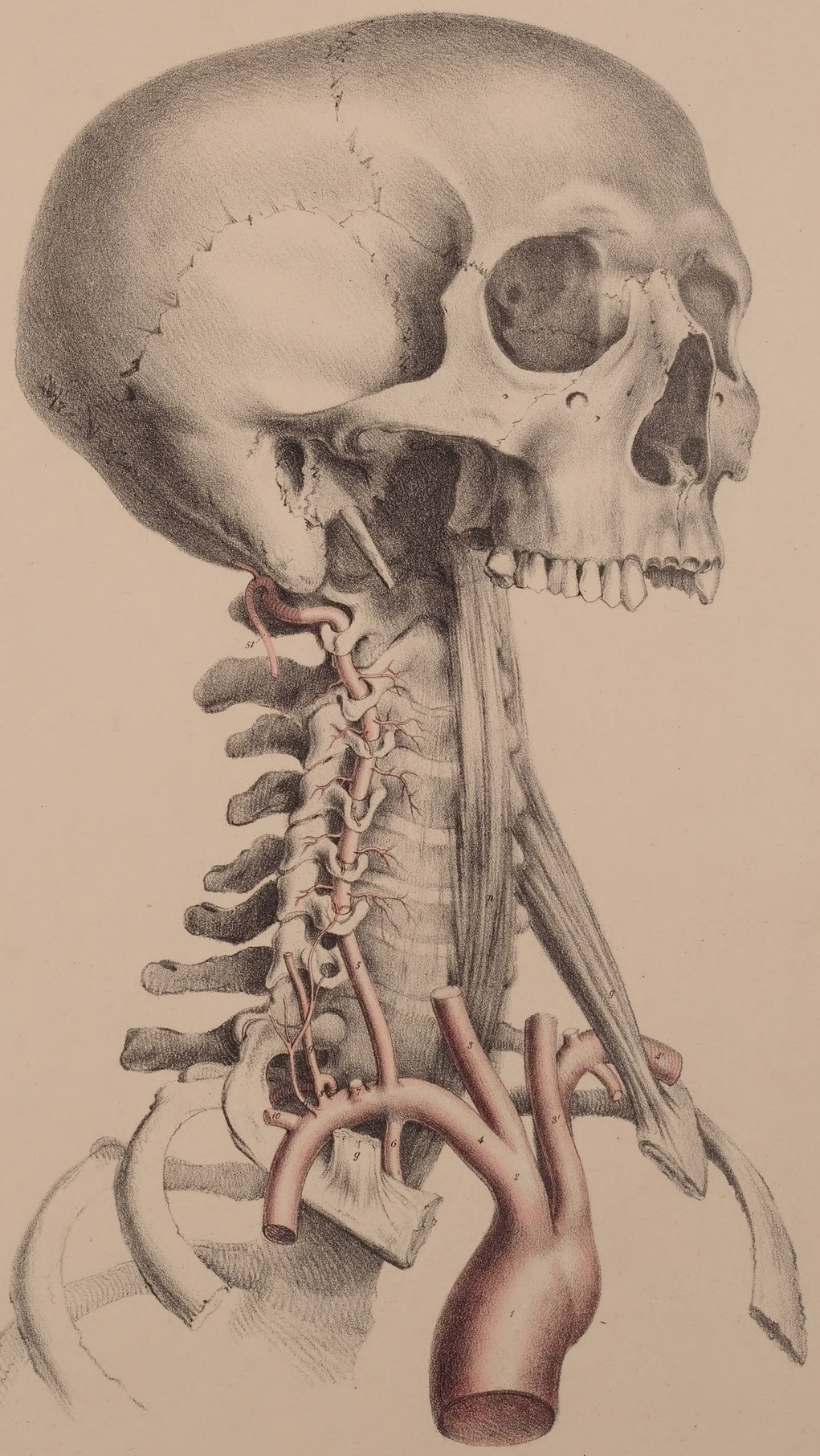

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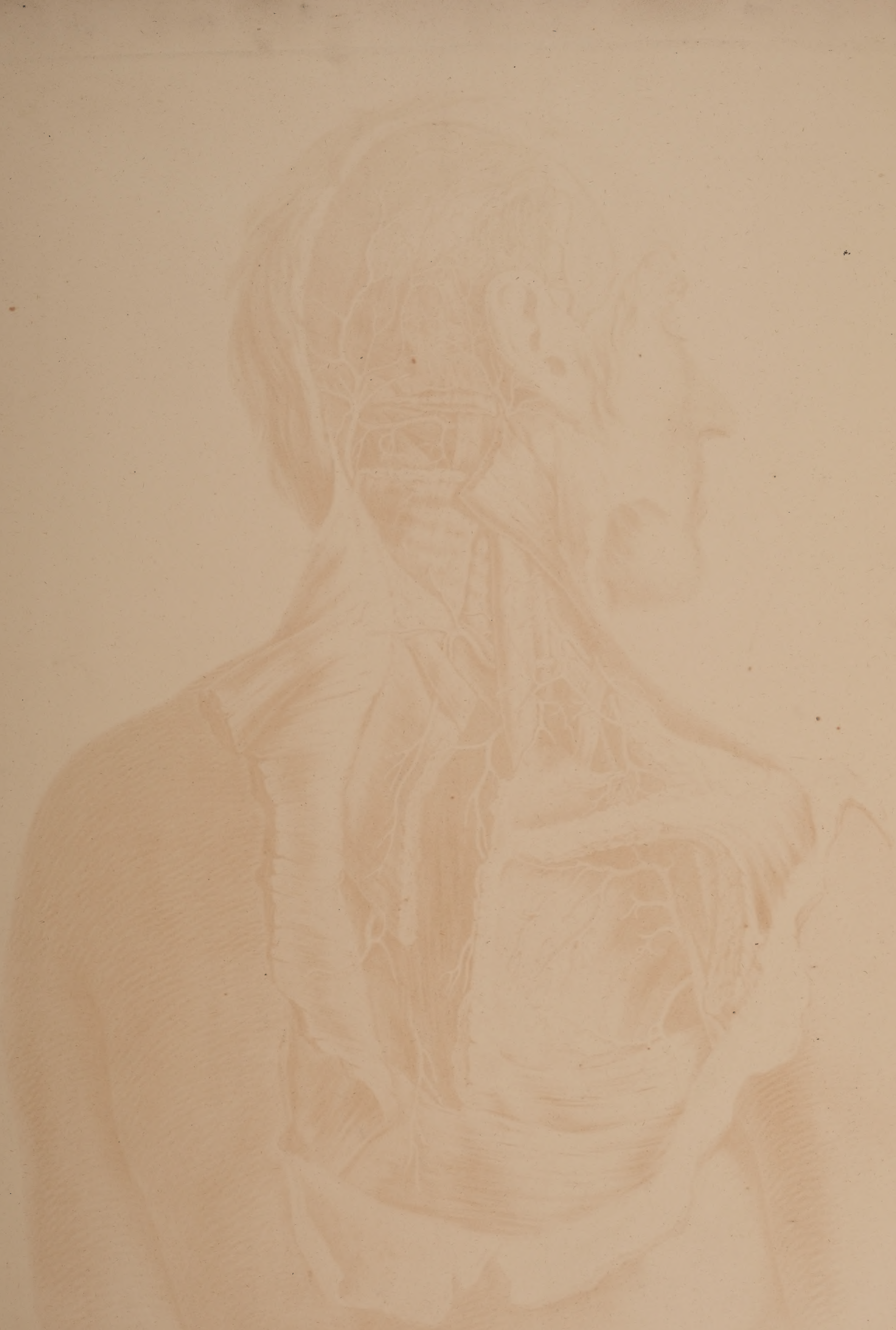

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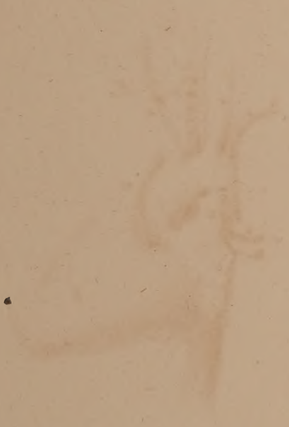

Pl. 20.

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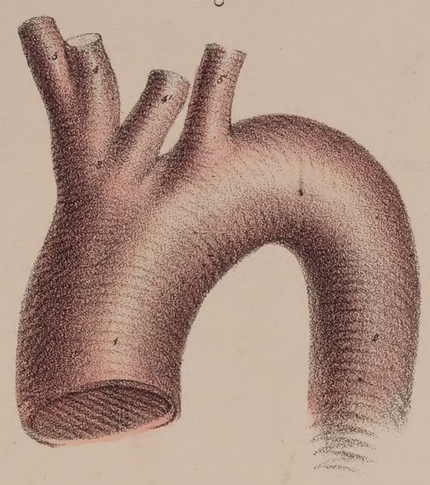

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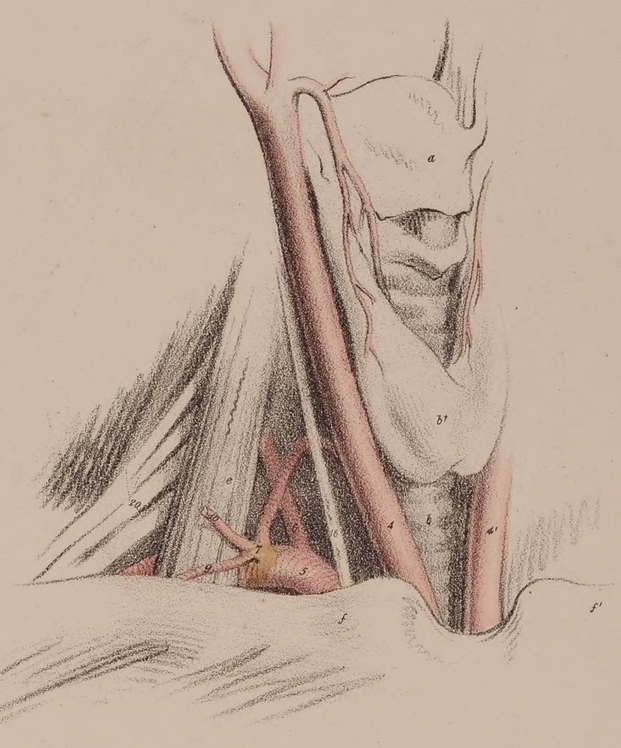

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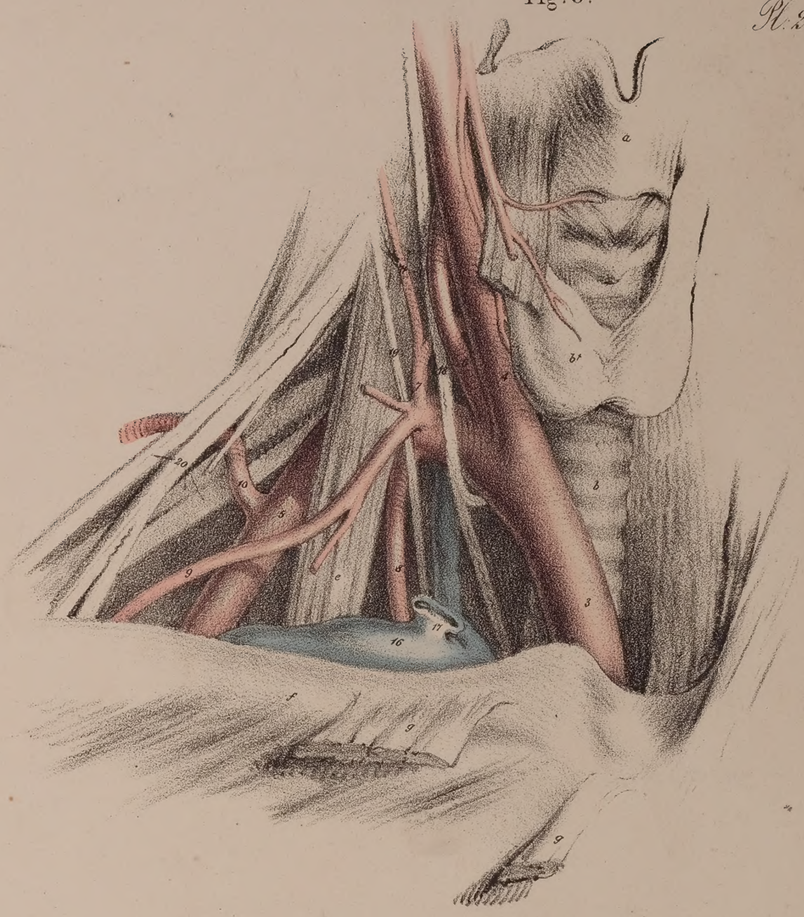

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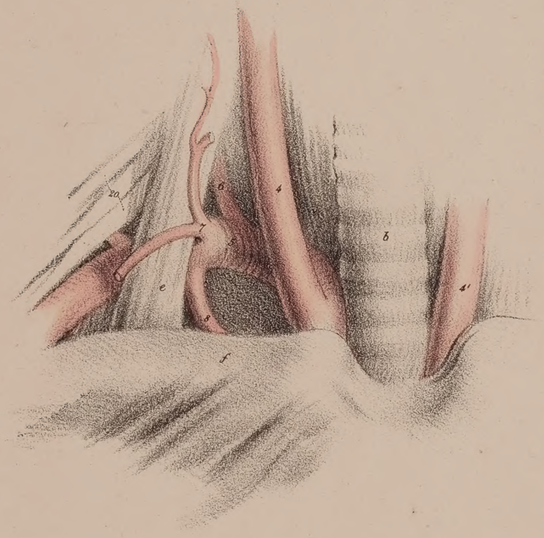

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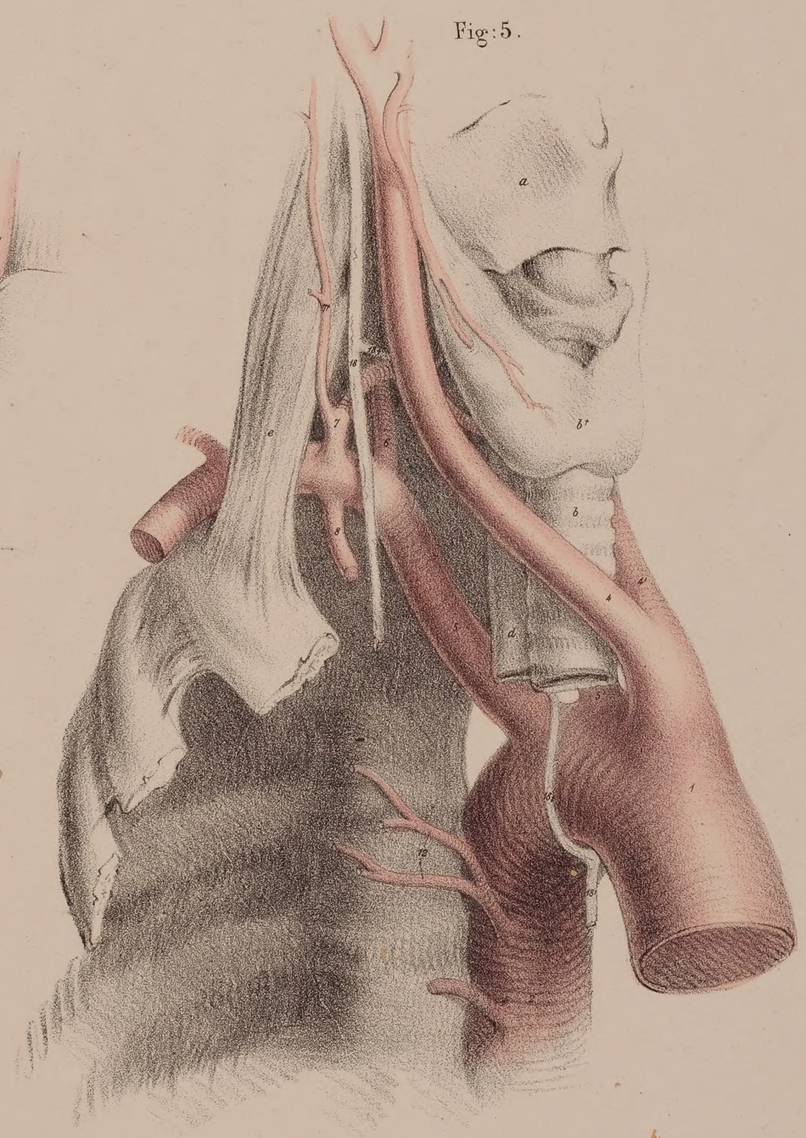

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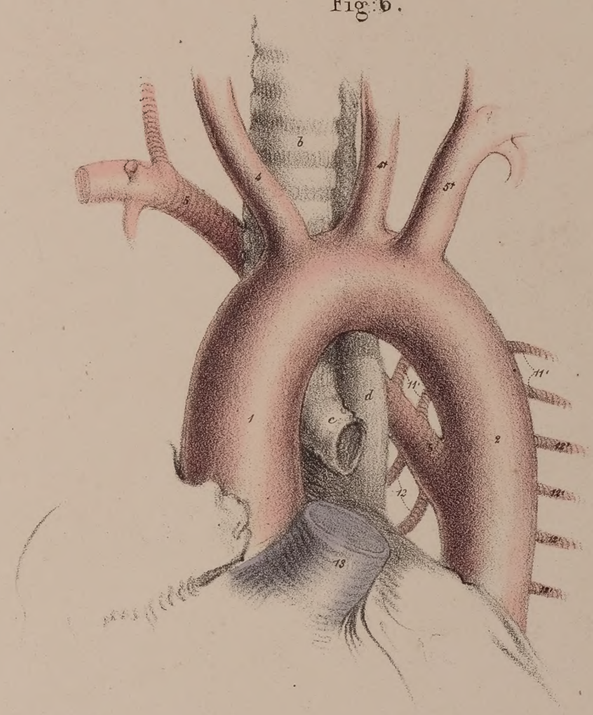

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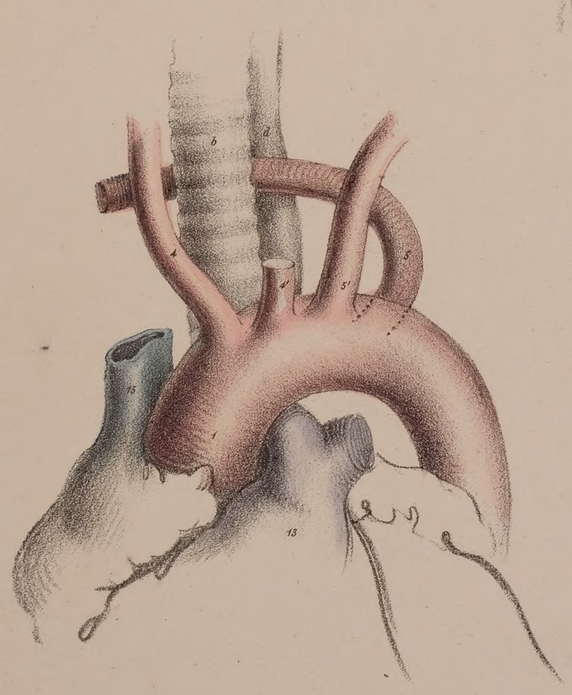

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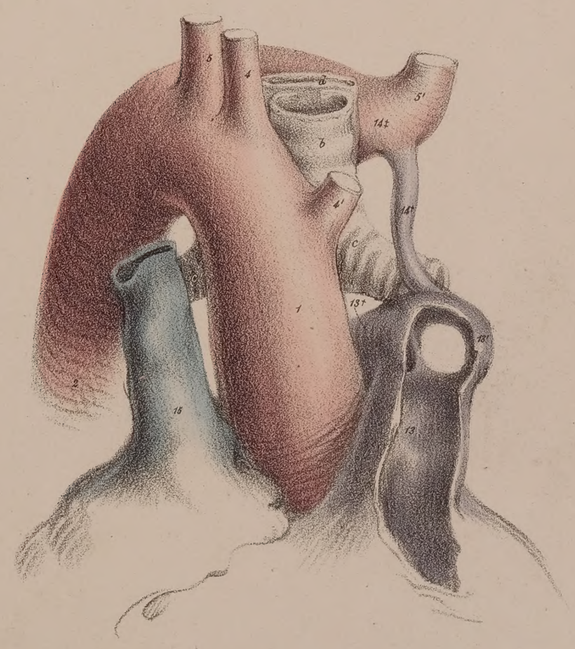

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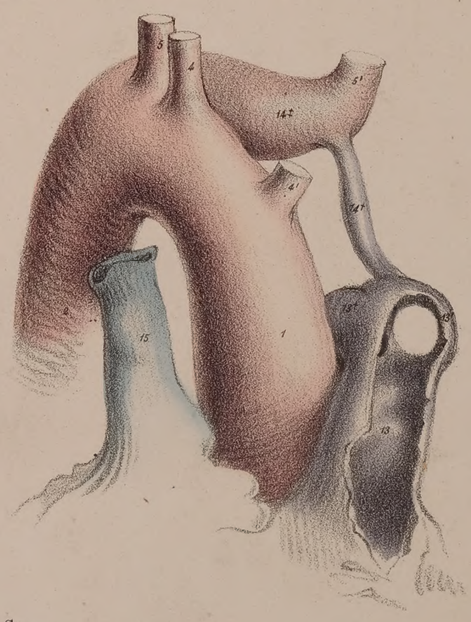

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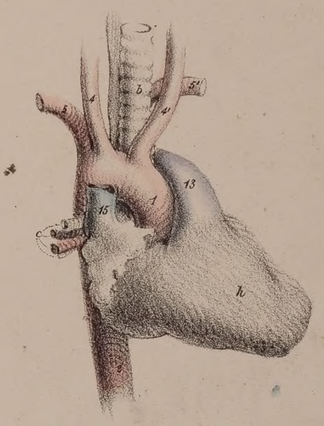

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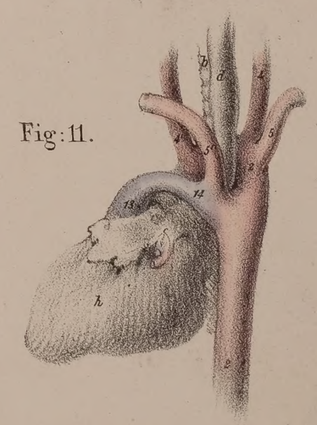

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Pl. 21.

Fig: 1.

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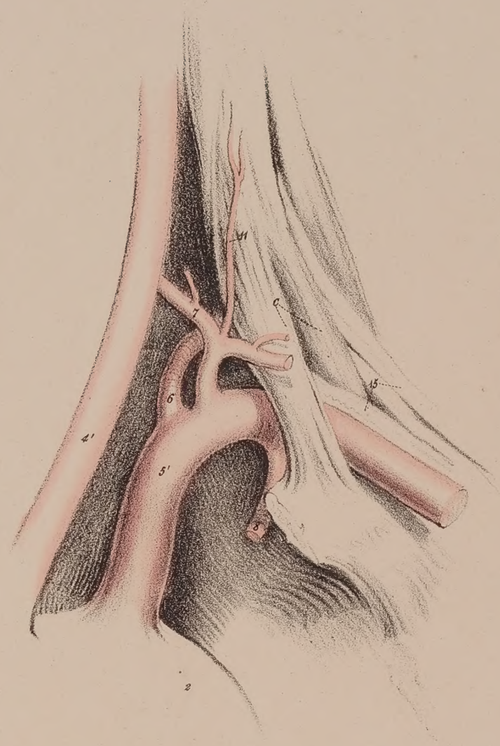

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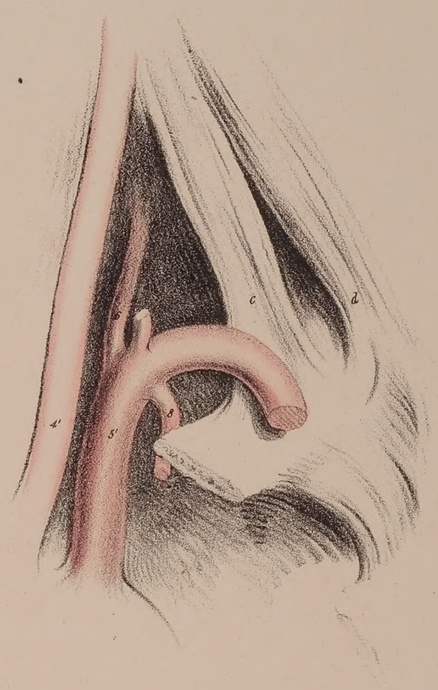

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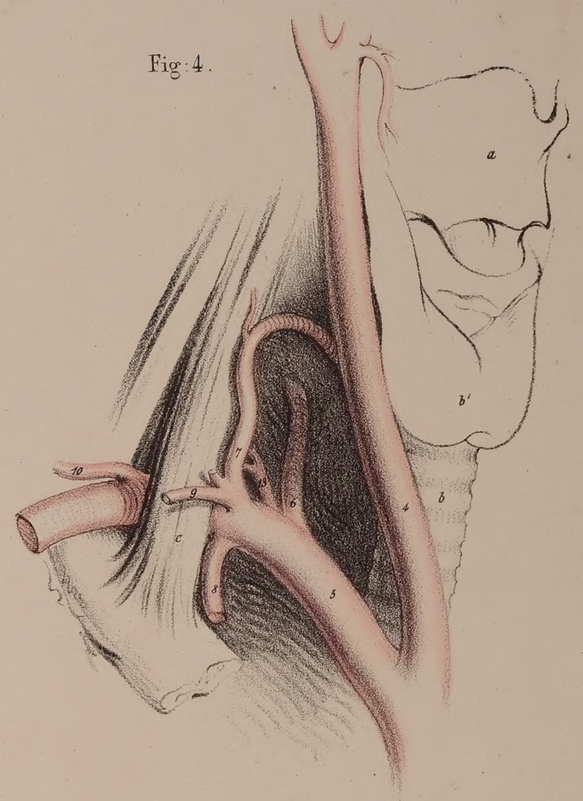

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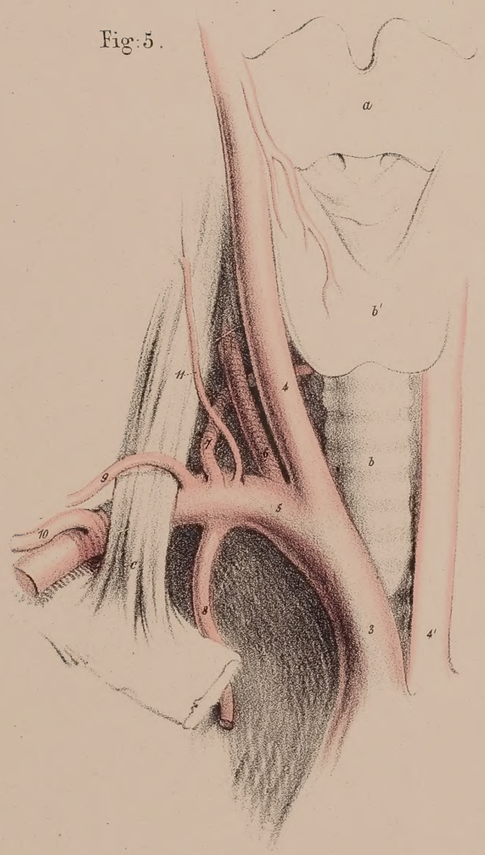

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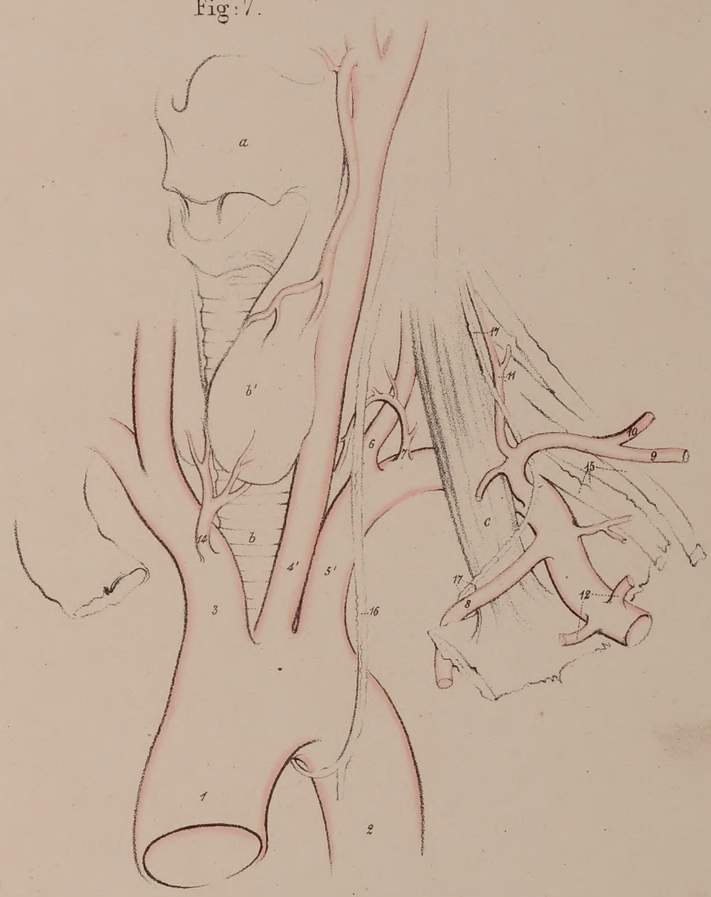

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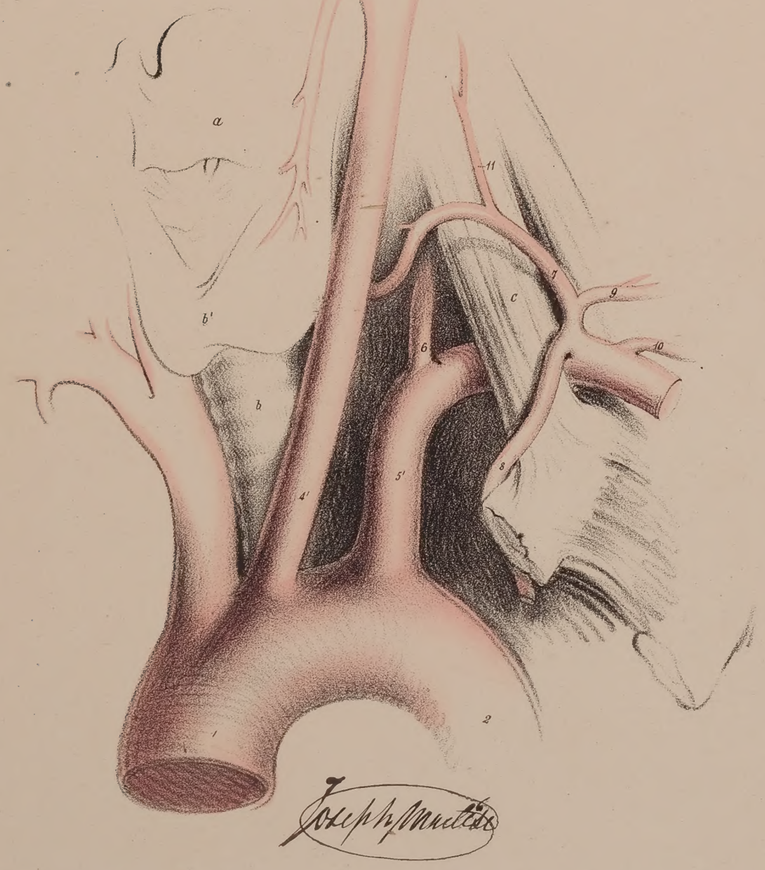

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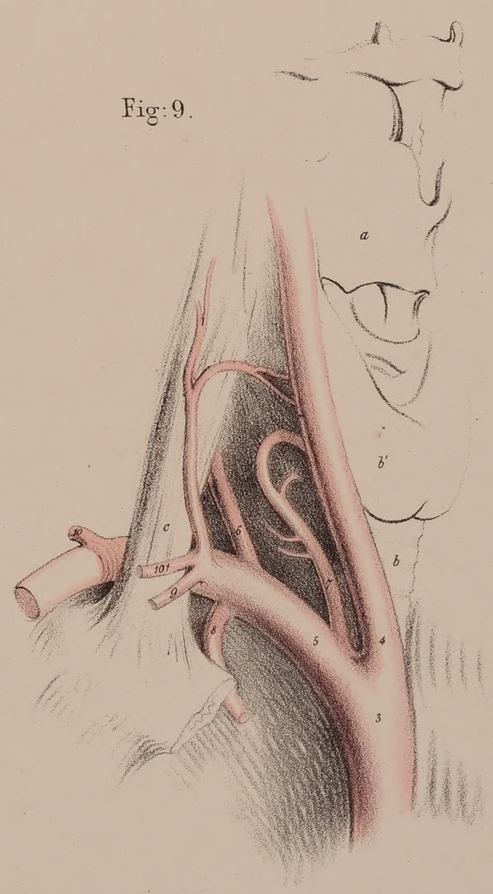

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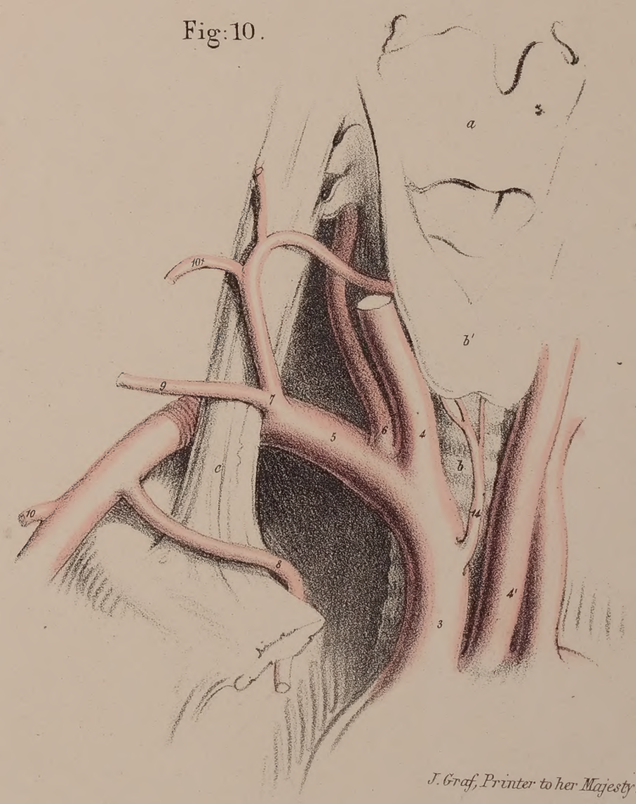

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Pl. 22.

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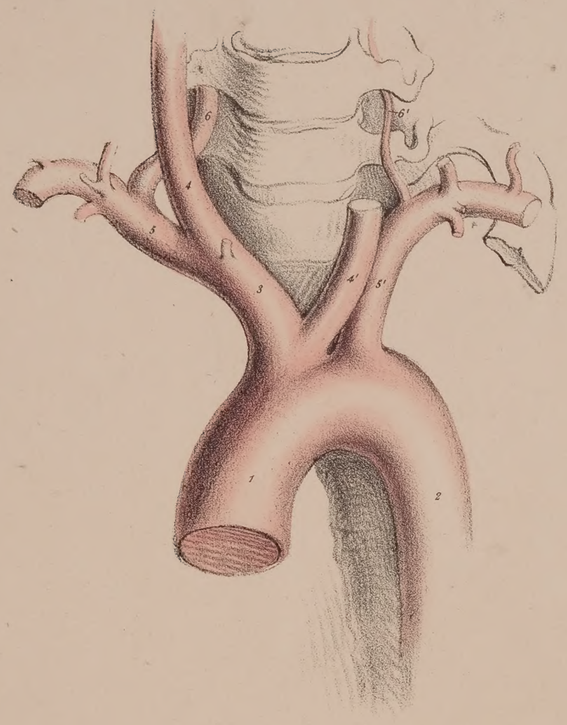

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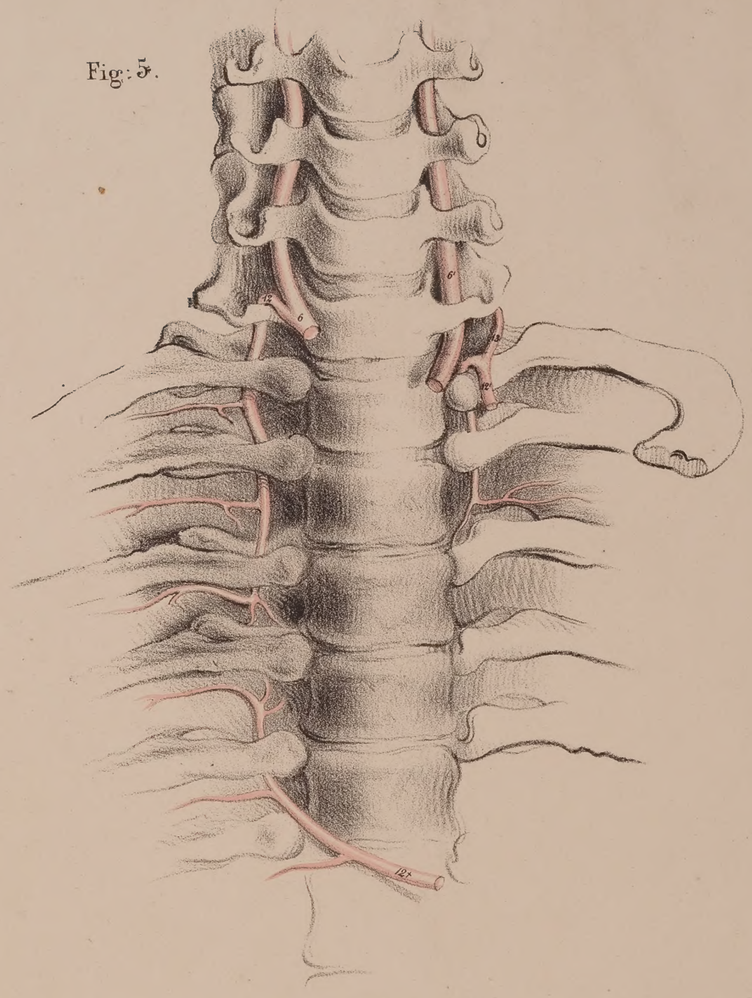

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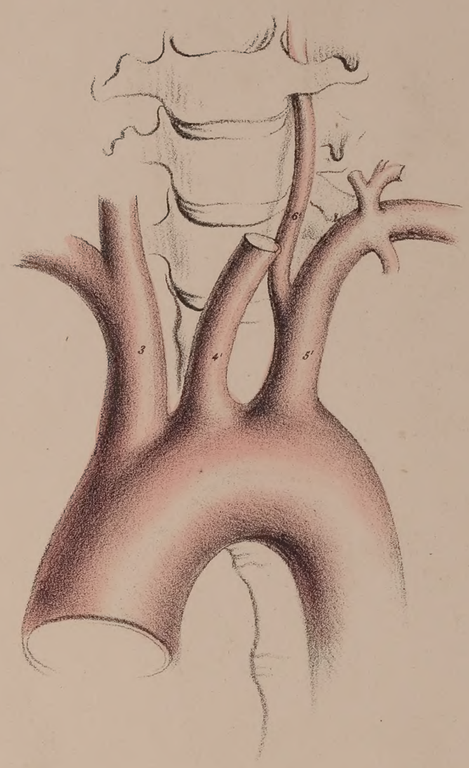

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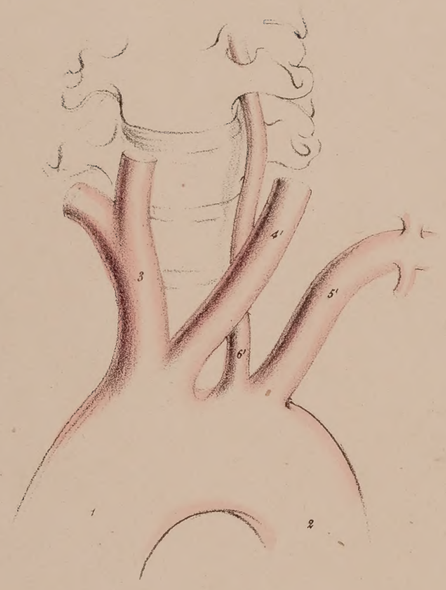

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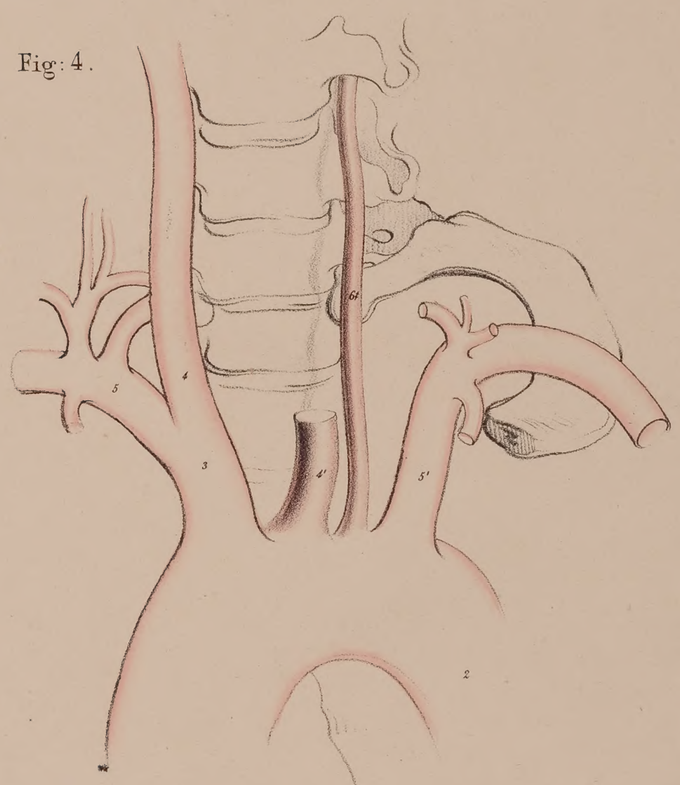

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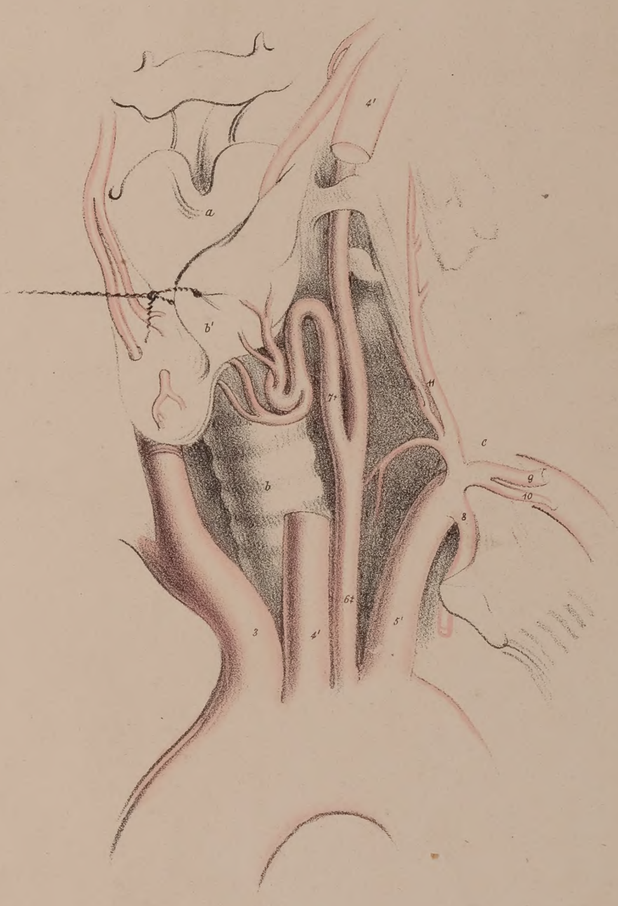

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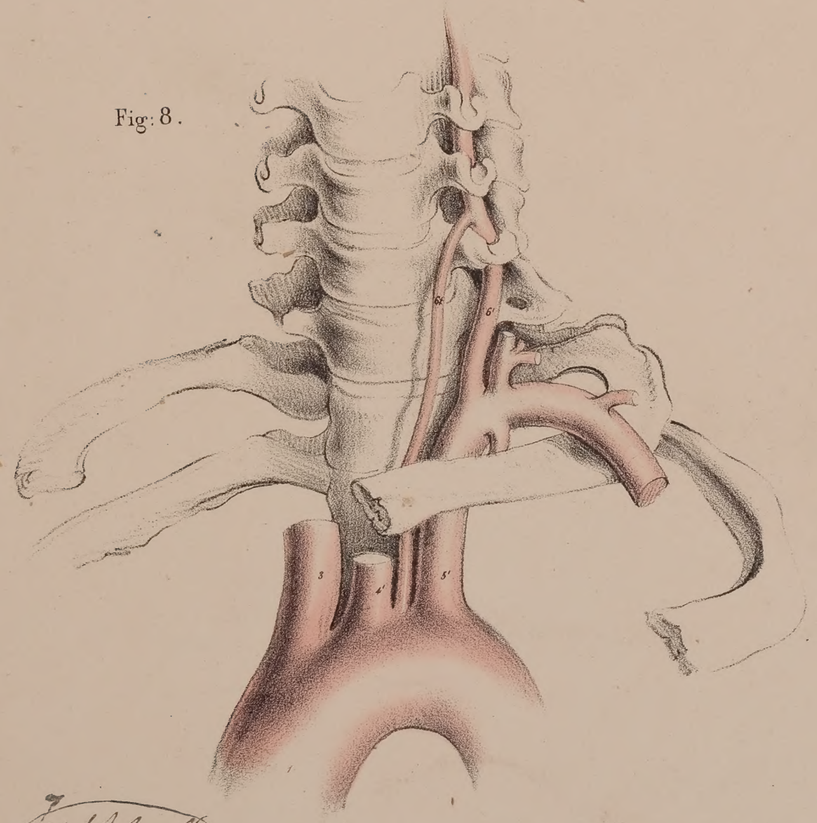

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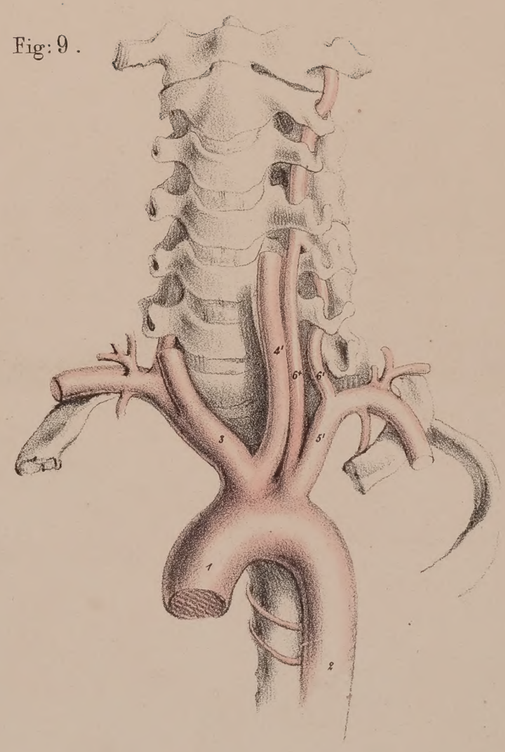

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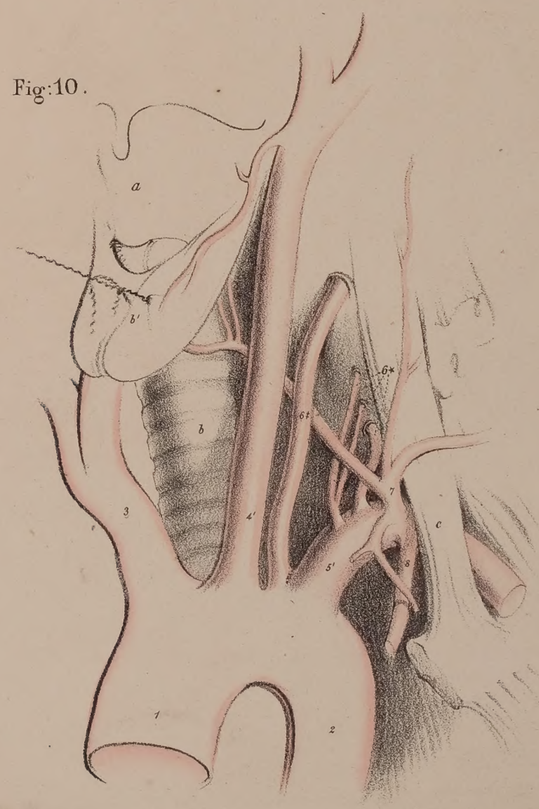

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Pl. 23.

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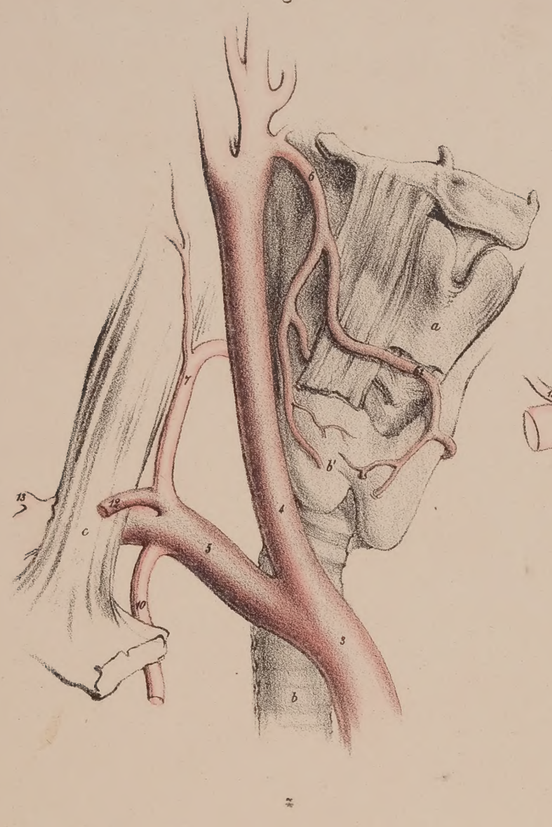

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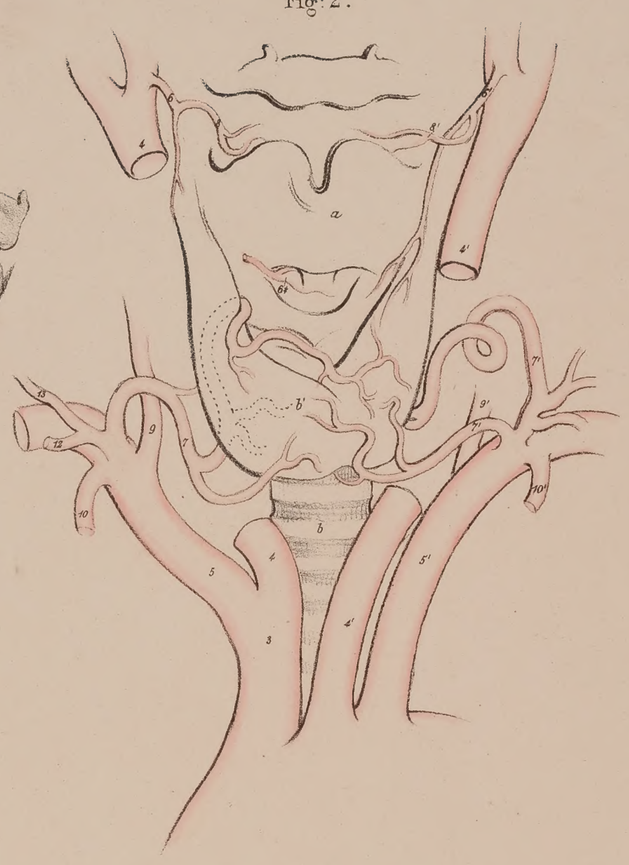

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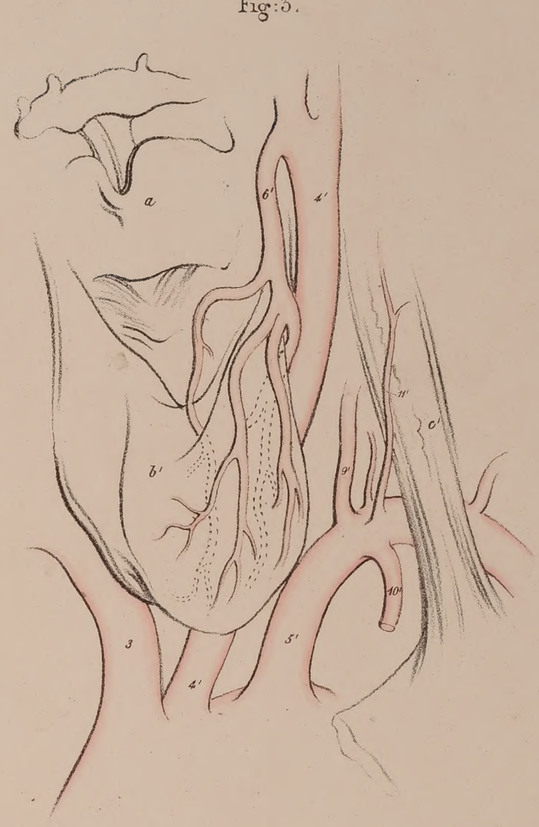

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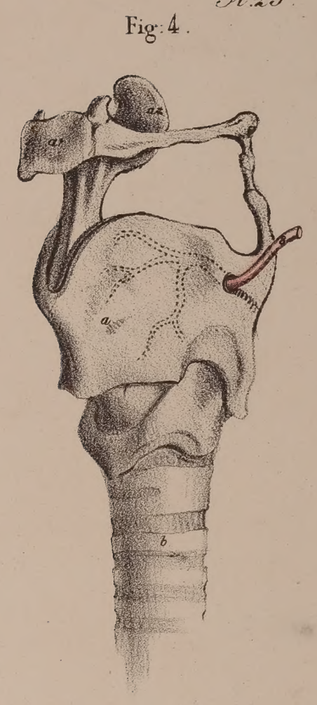

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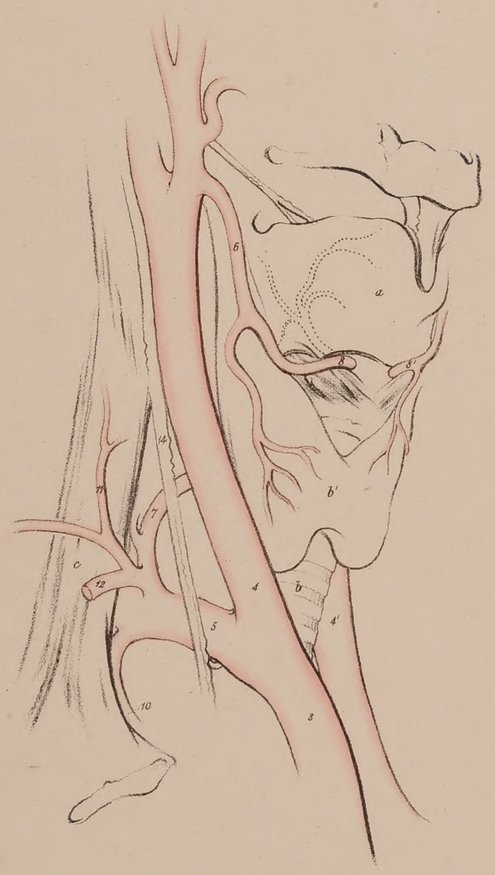

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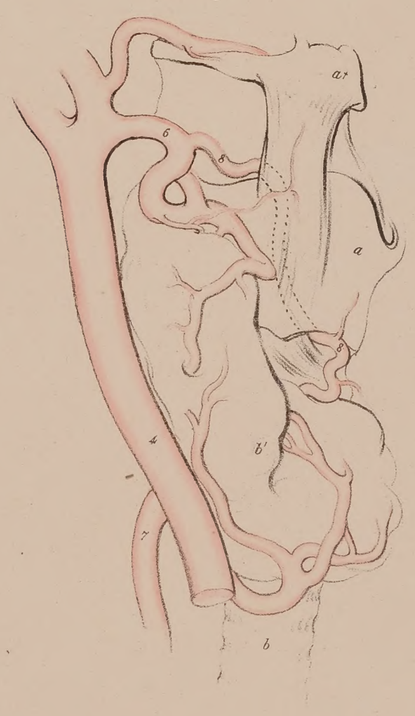

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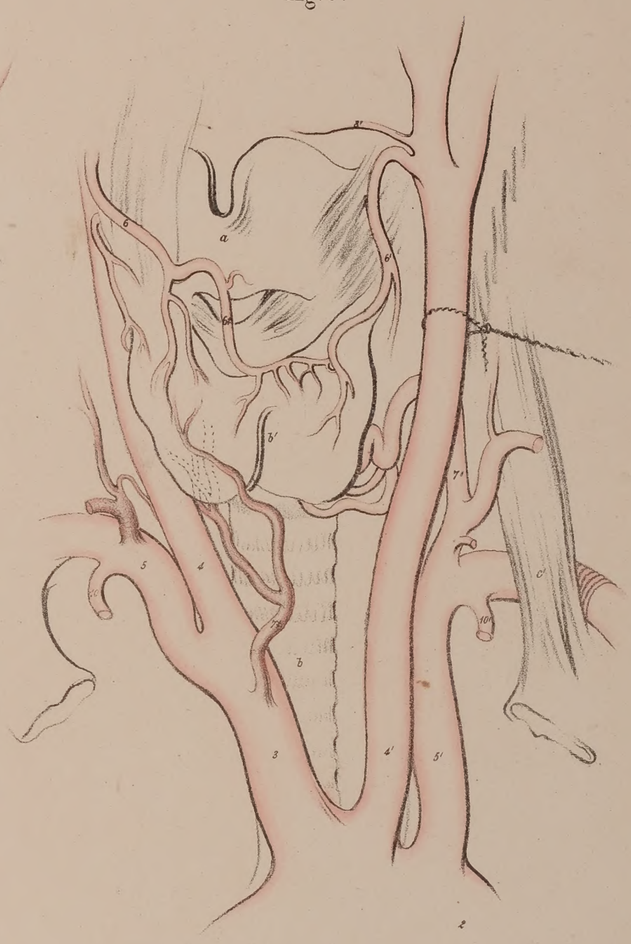

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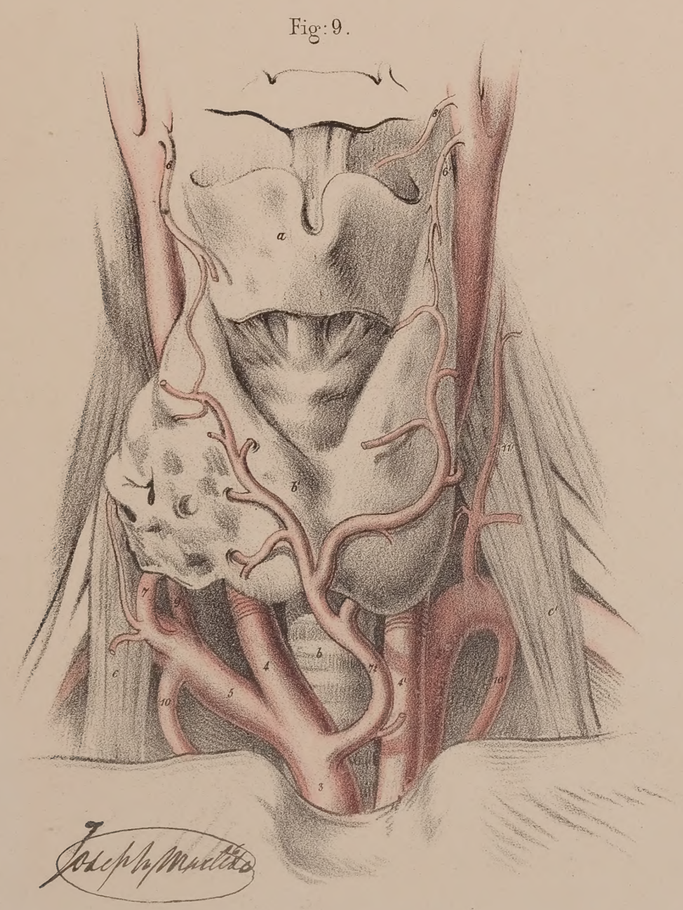

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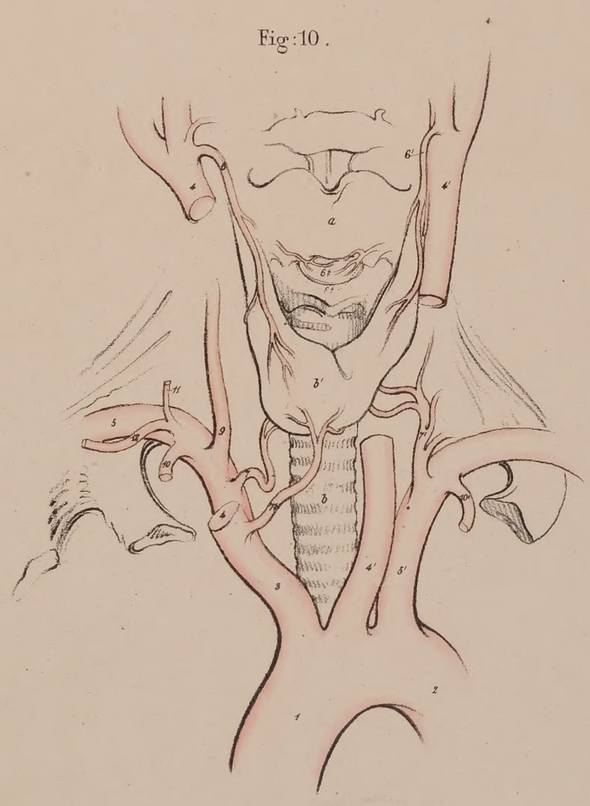

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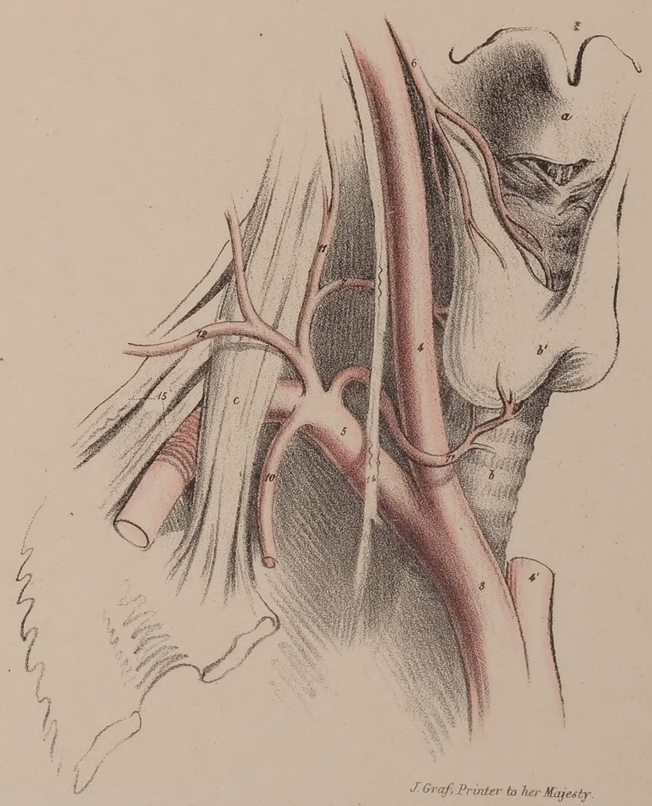

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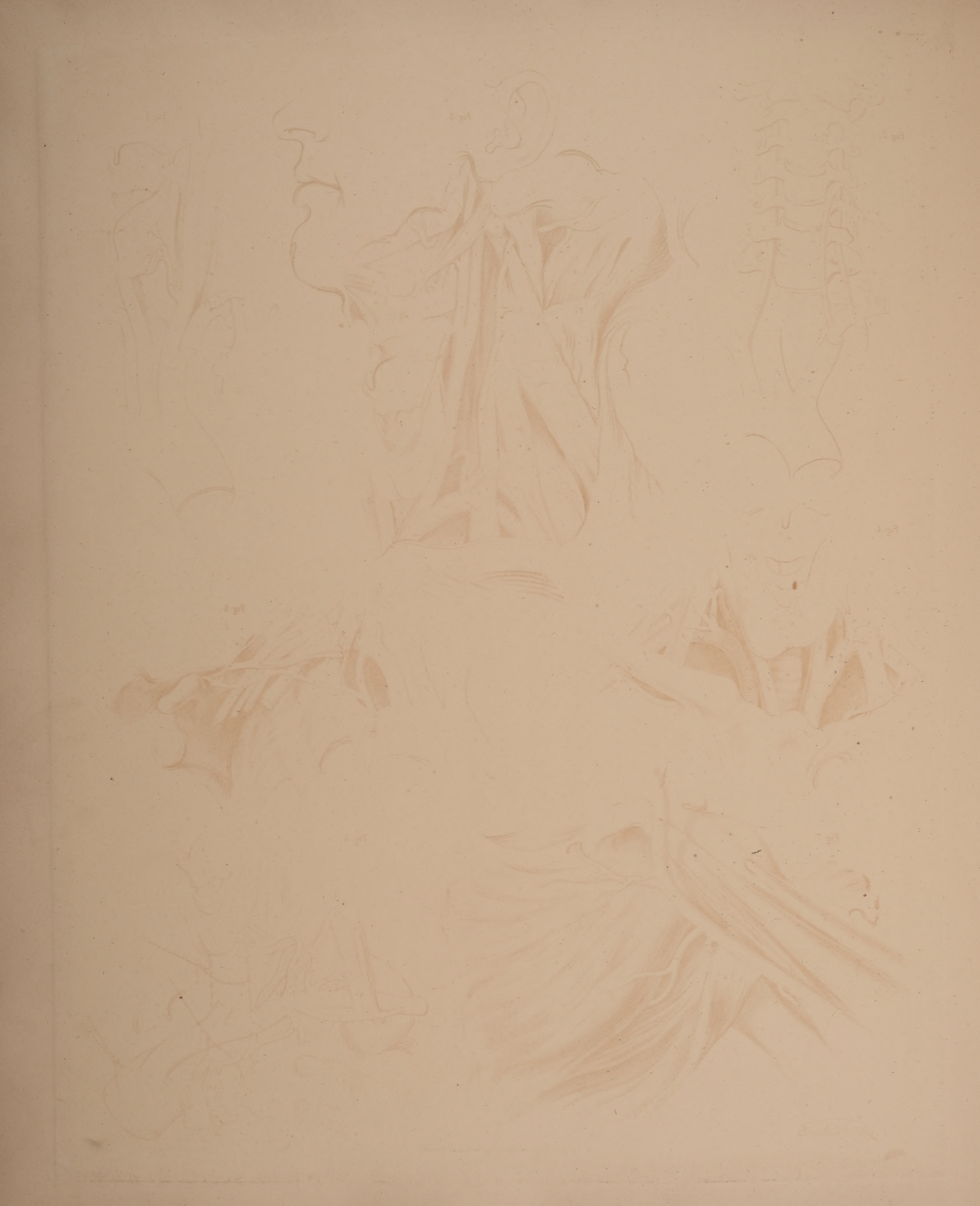

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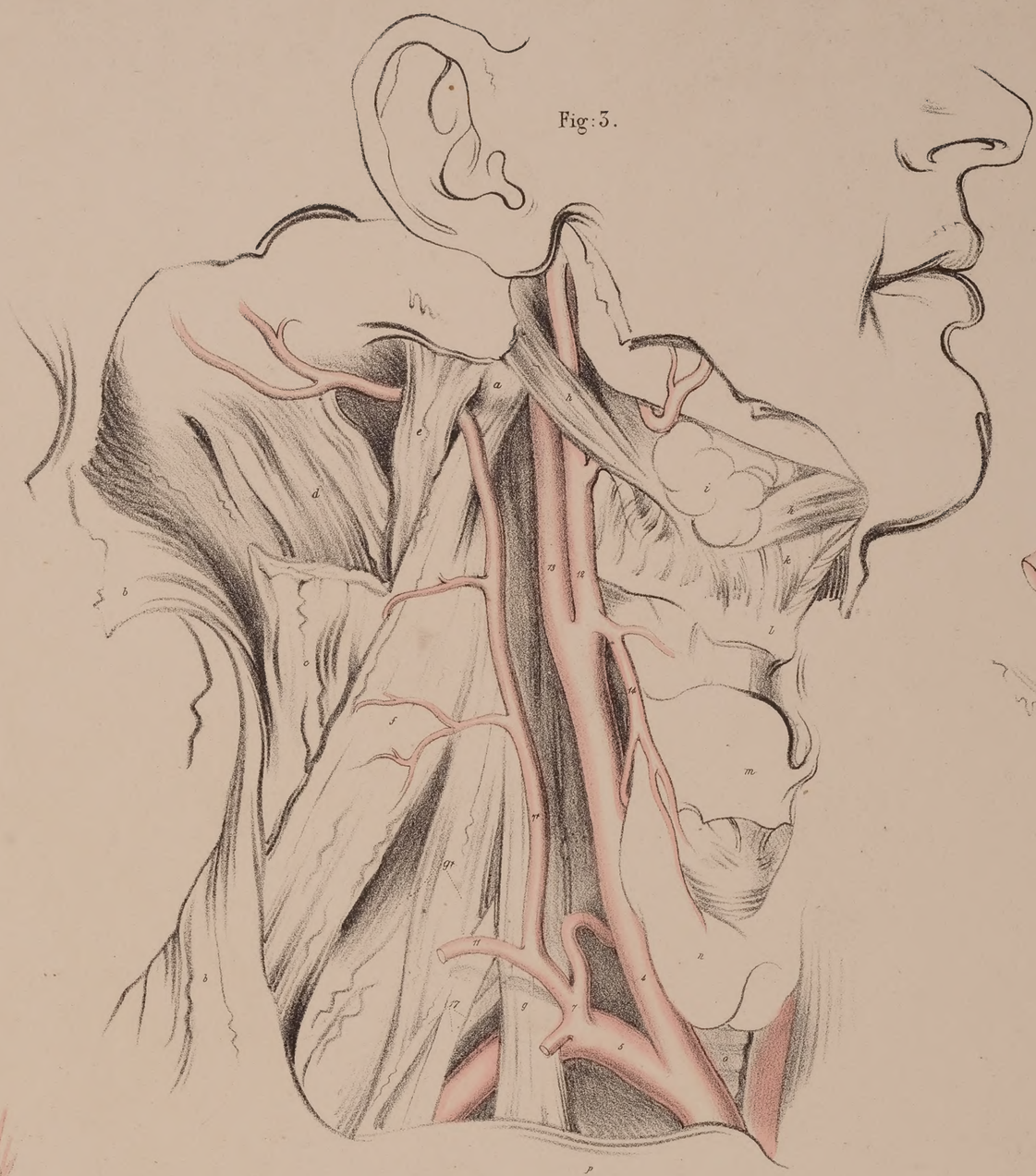

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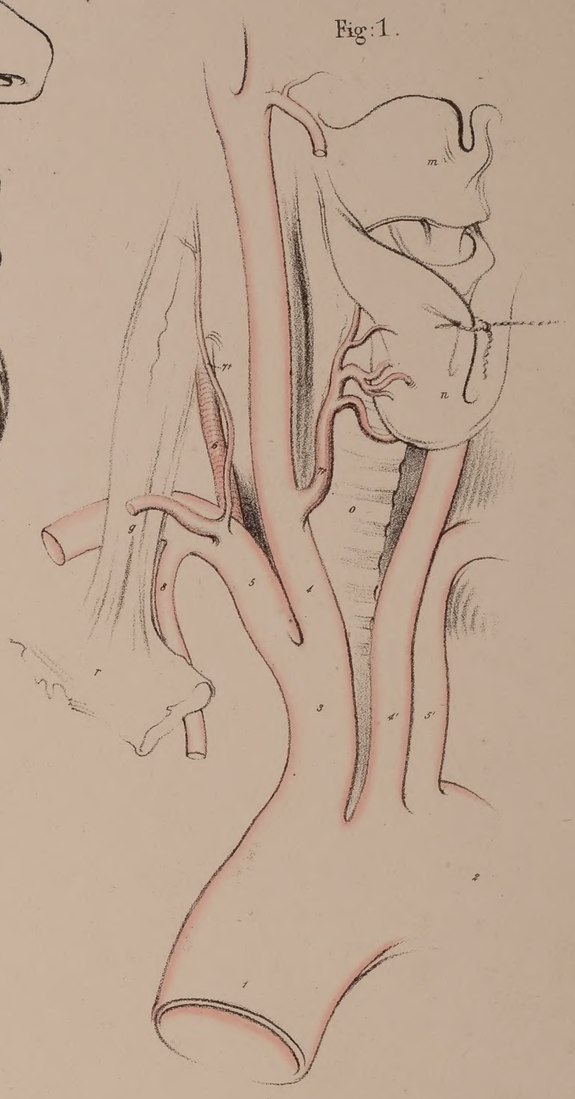

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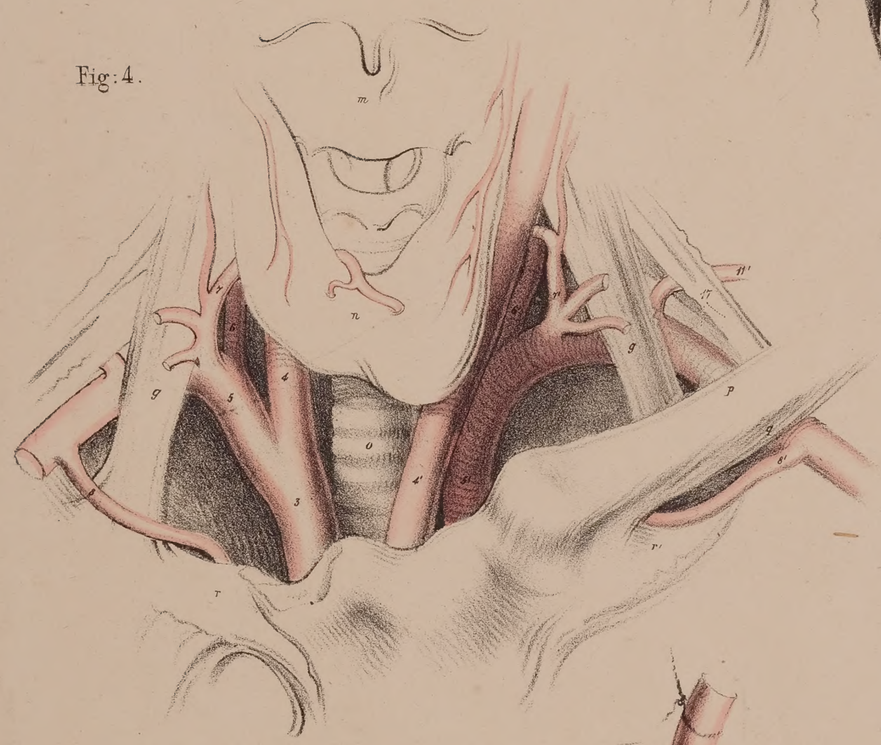

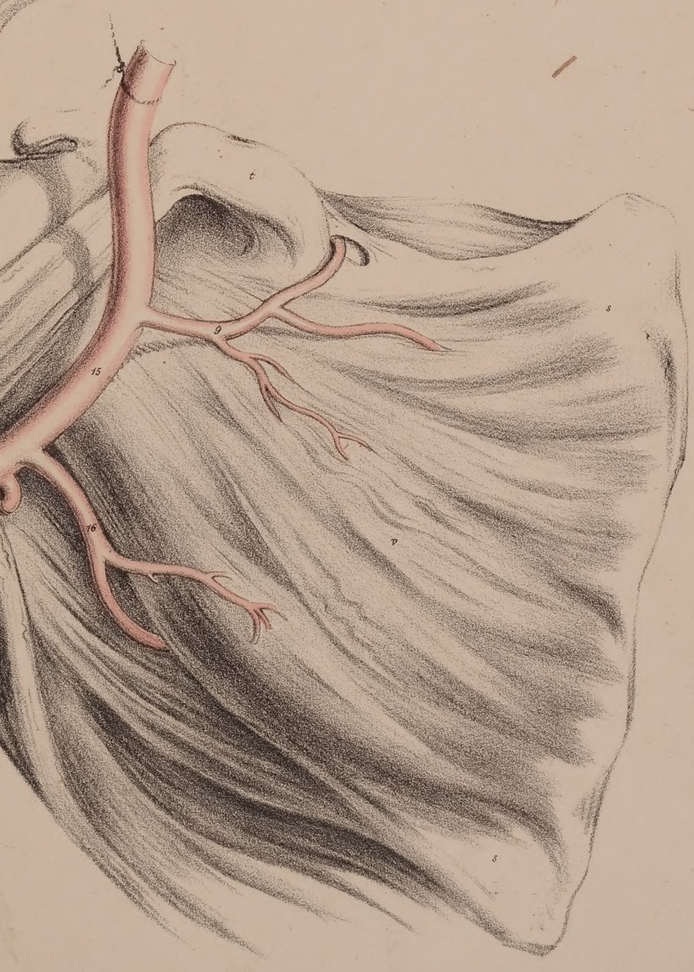

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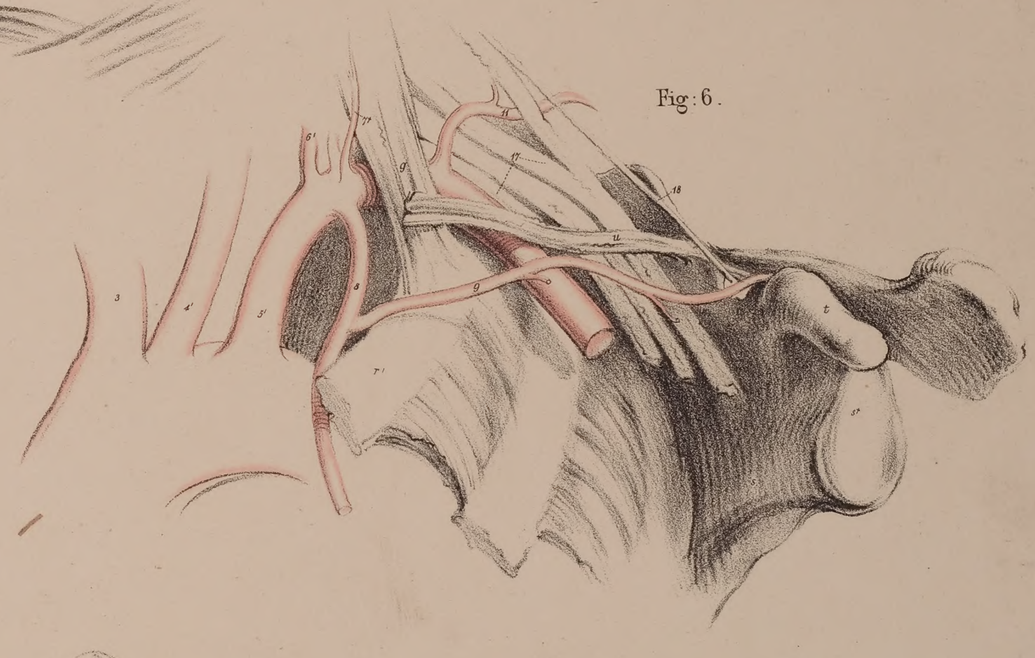

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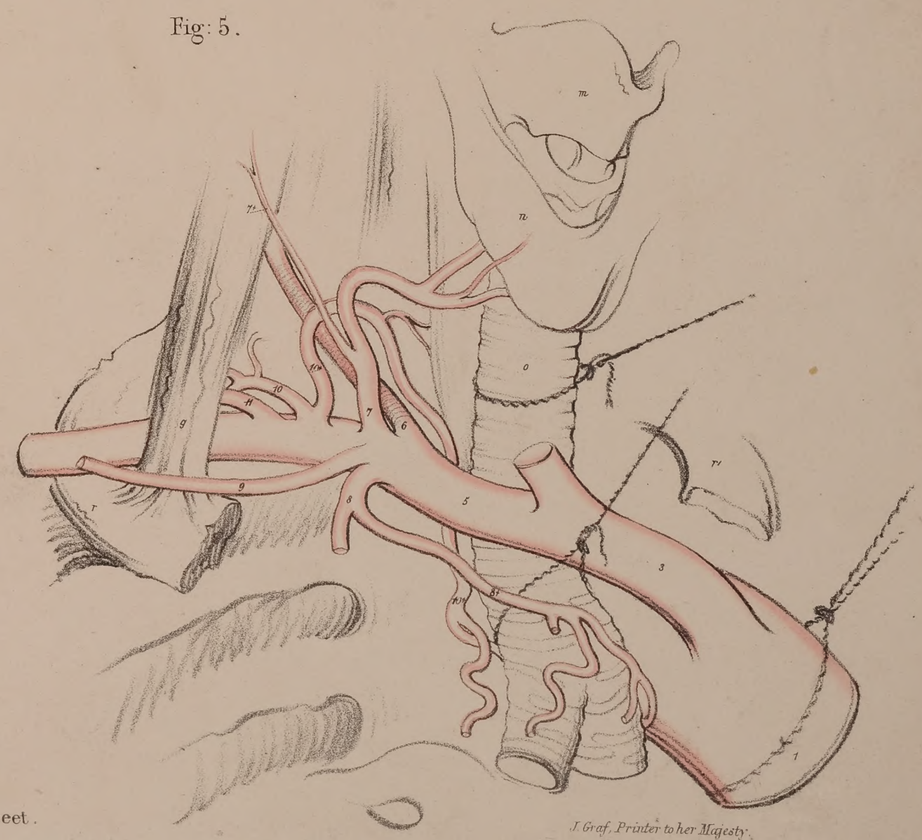

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Pl. 25

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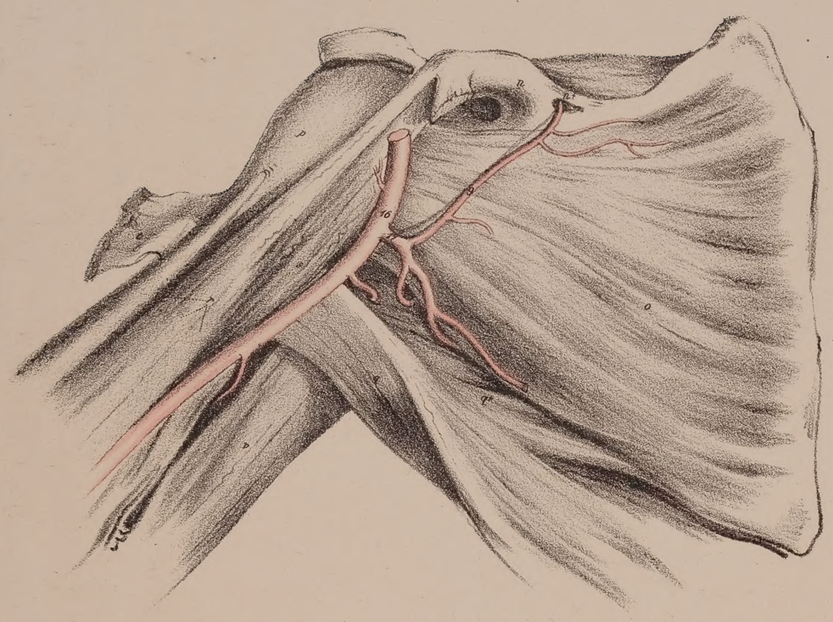

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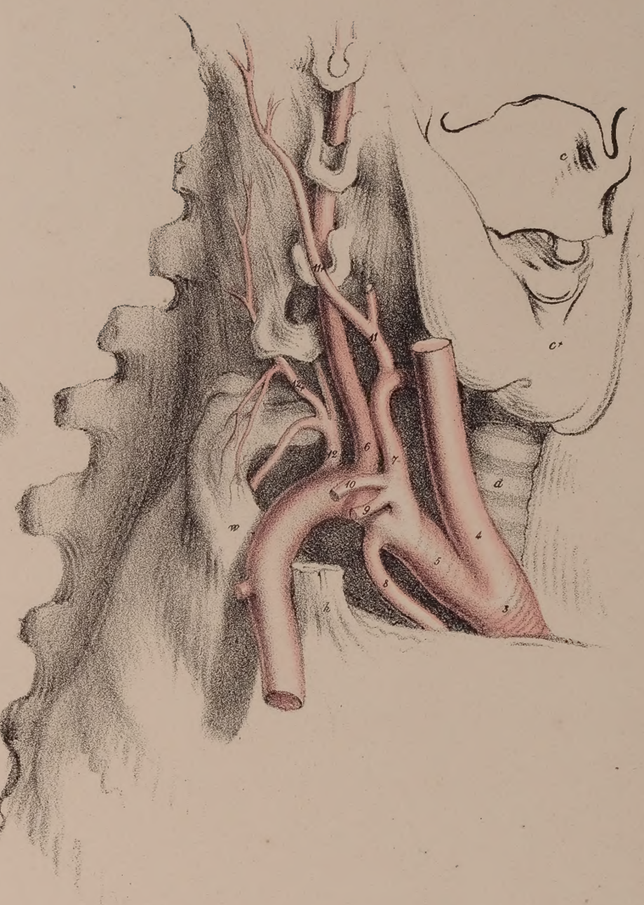

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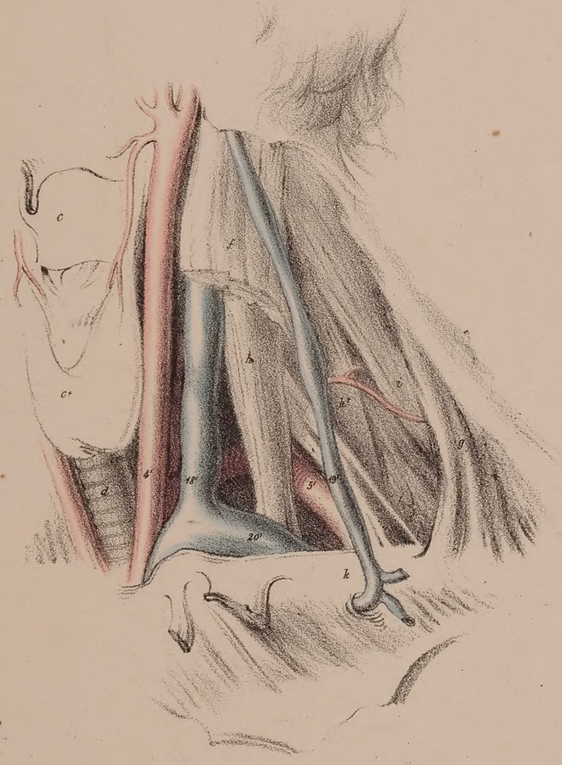

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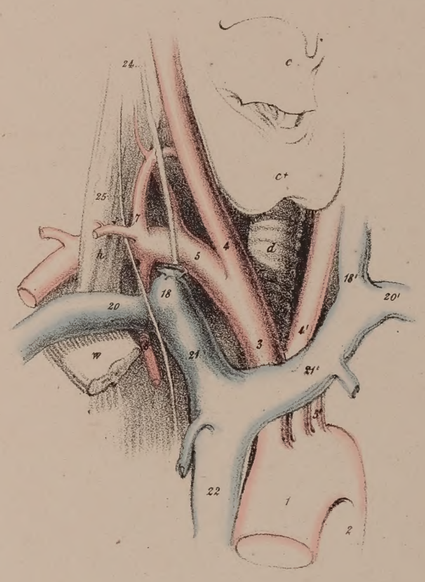

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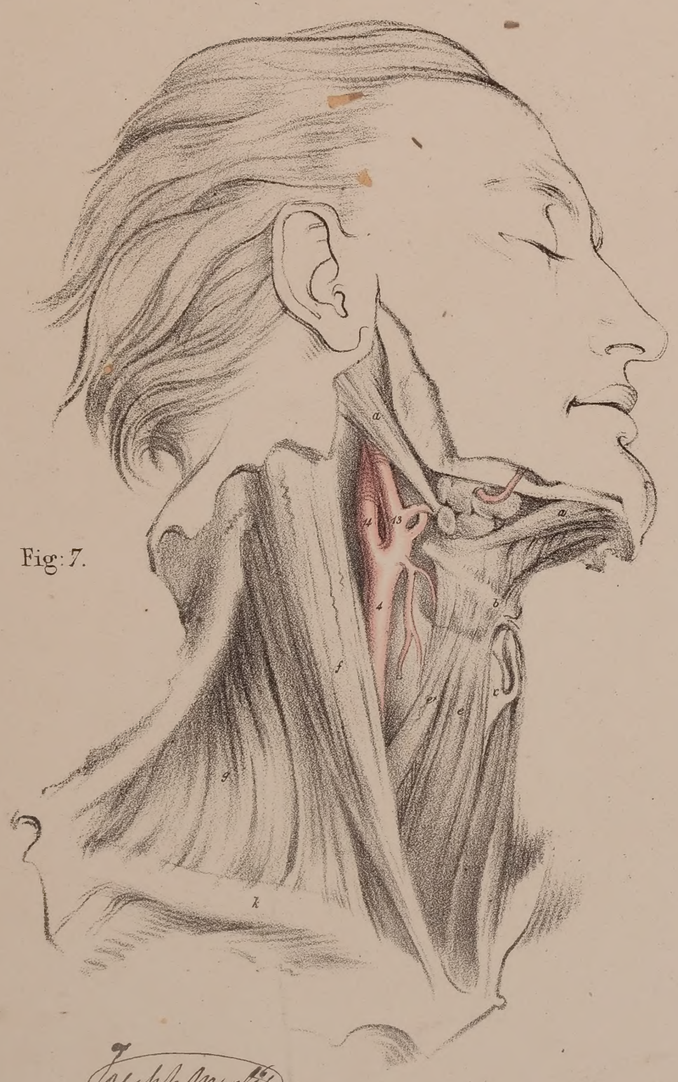

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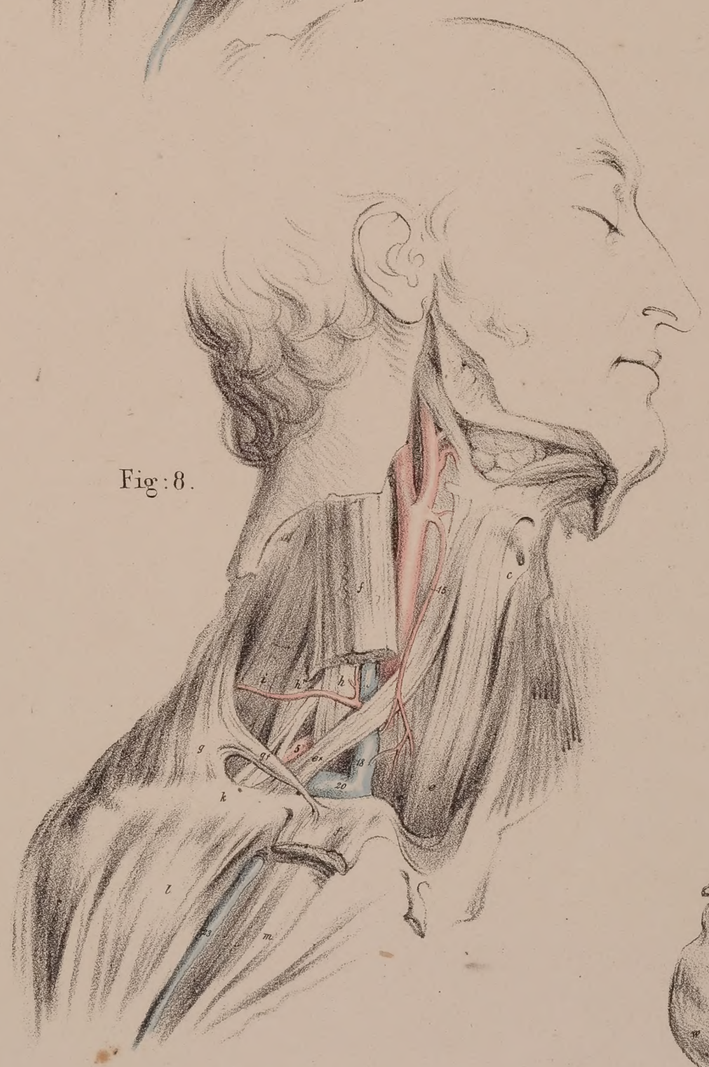

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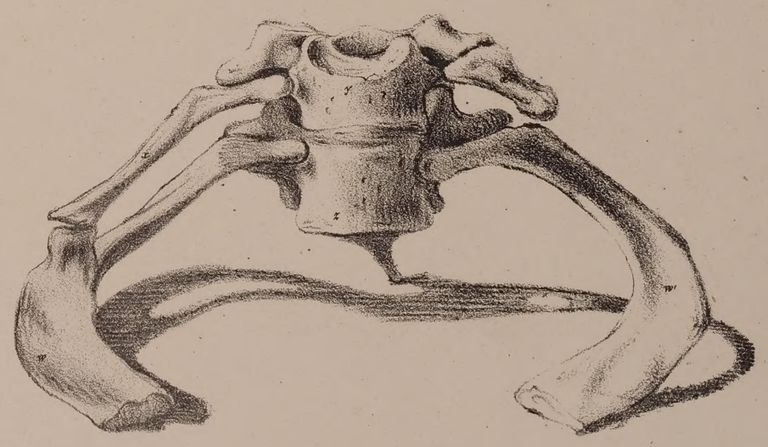

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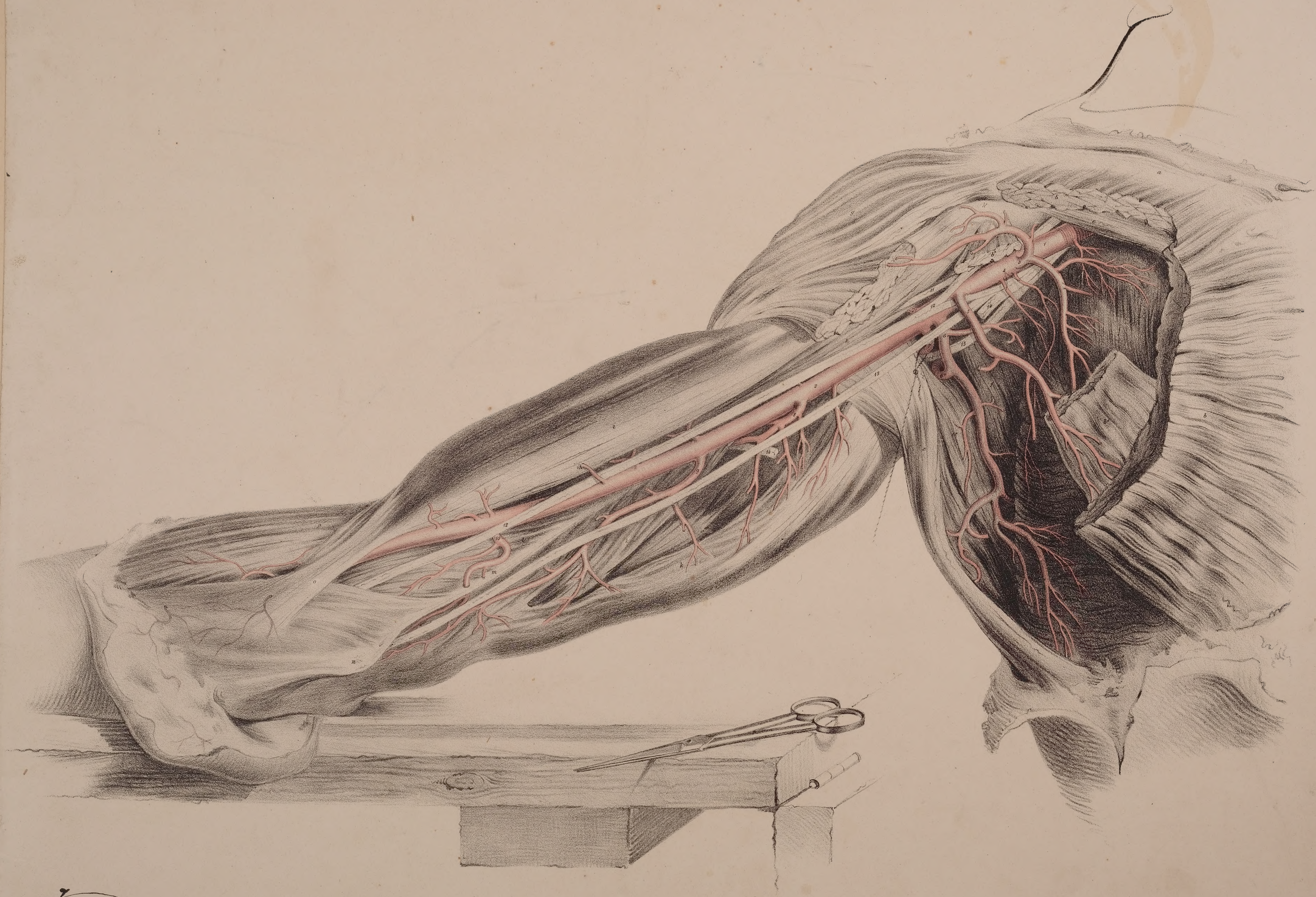
Pl. 26.



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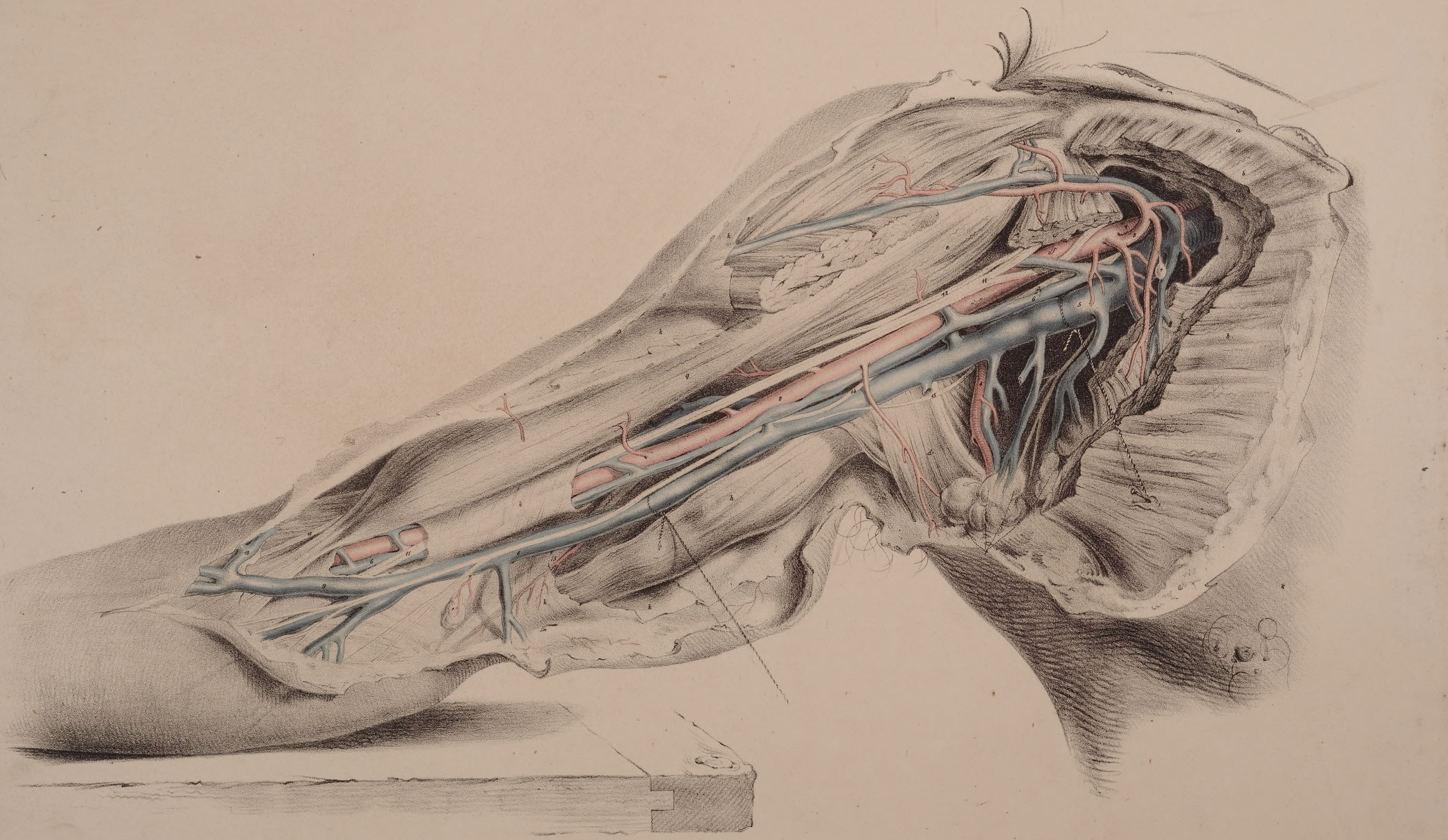

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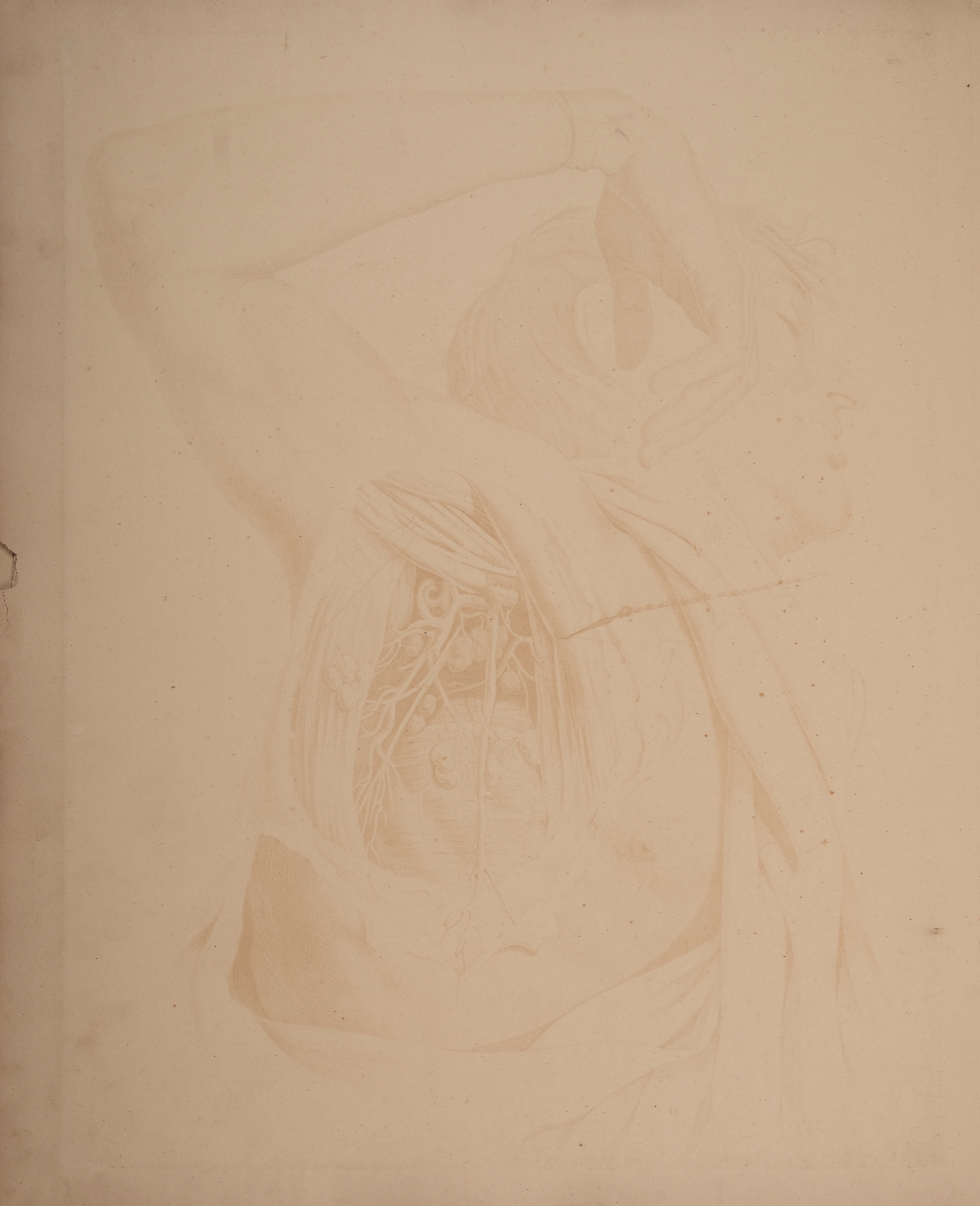

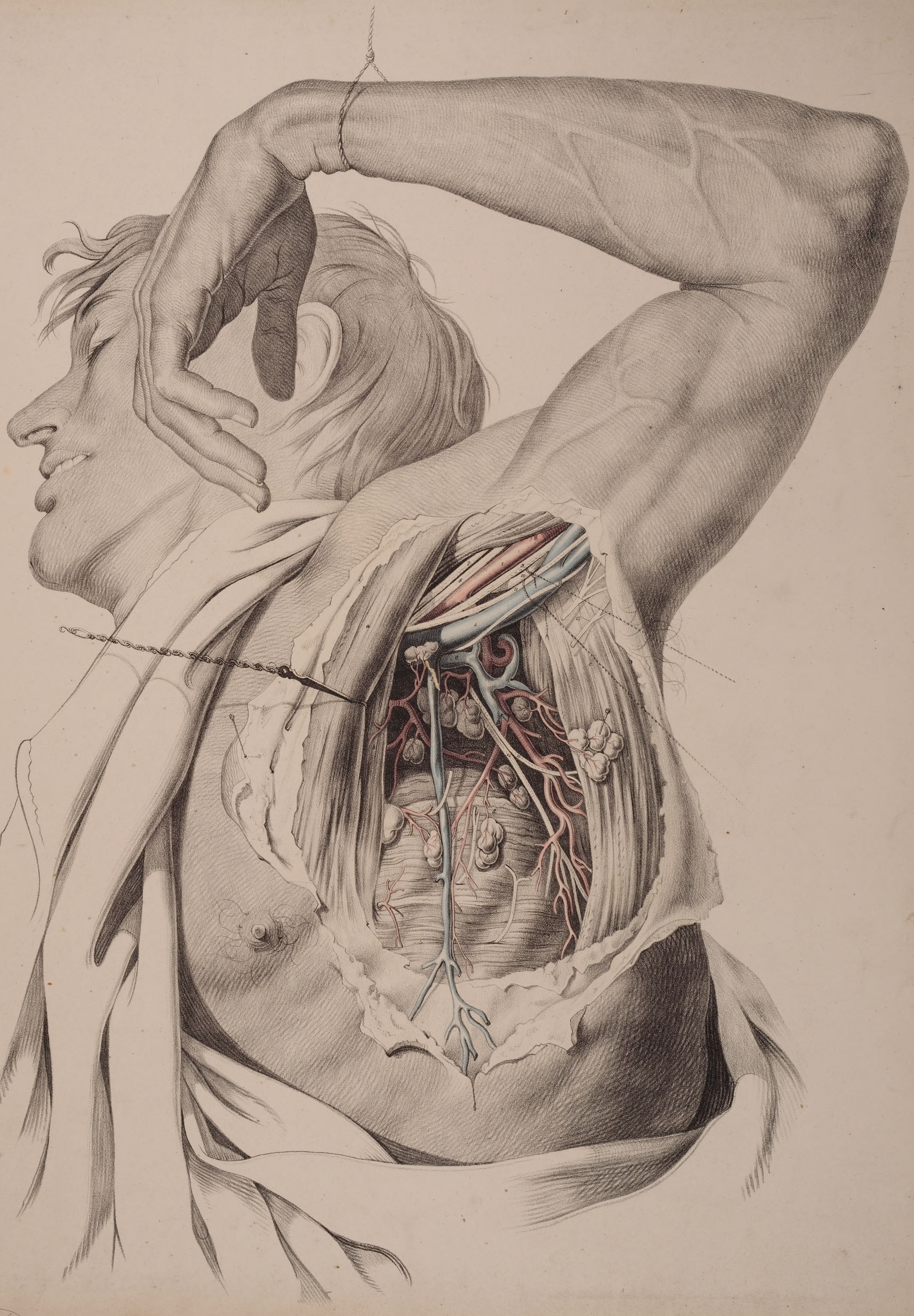

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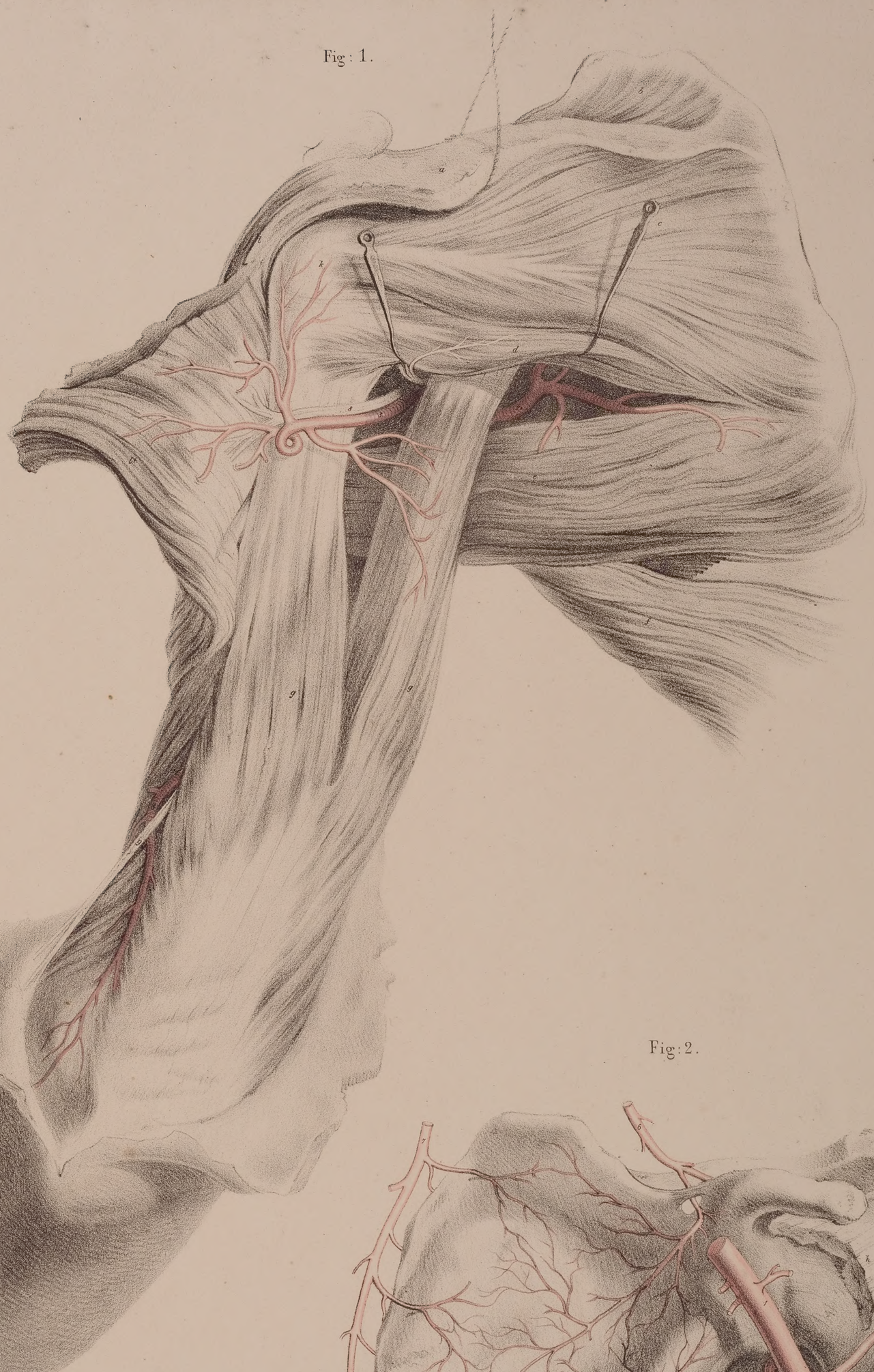
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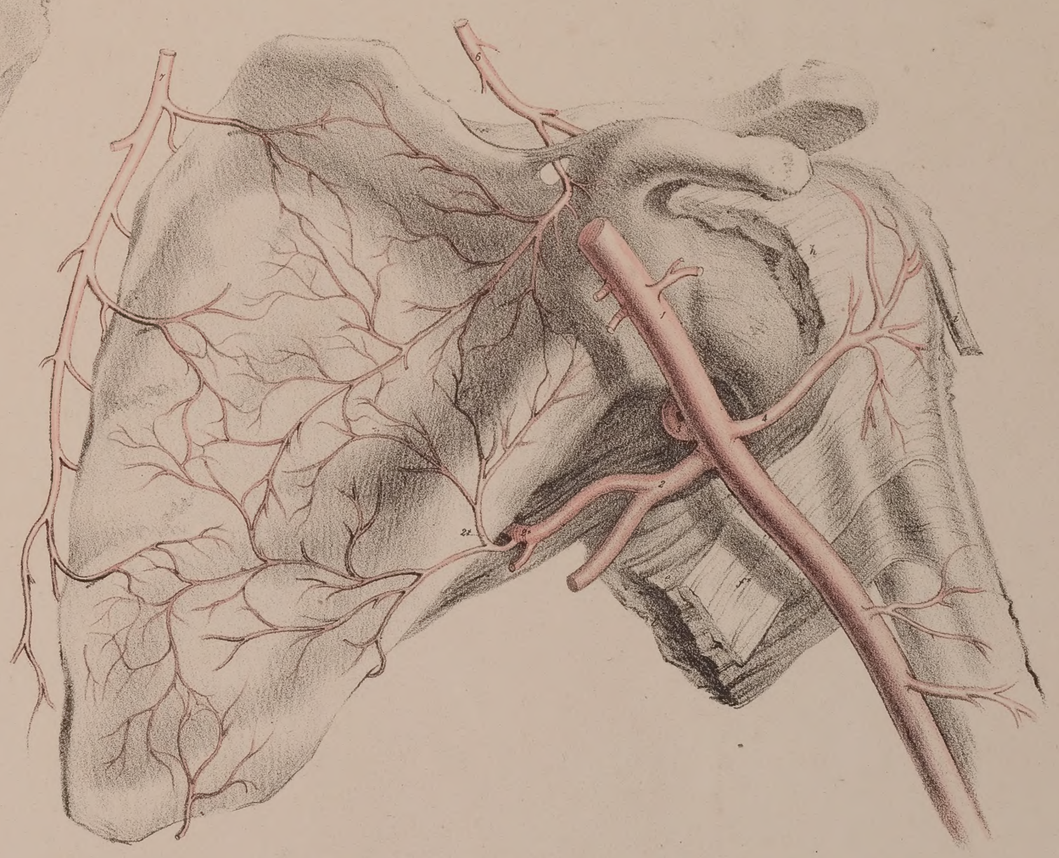
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Fig: 2.

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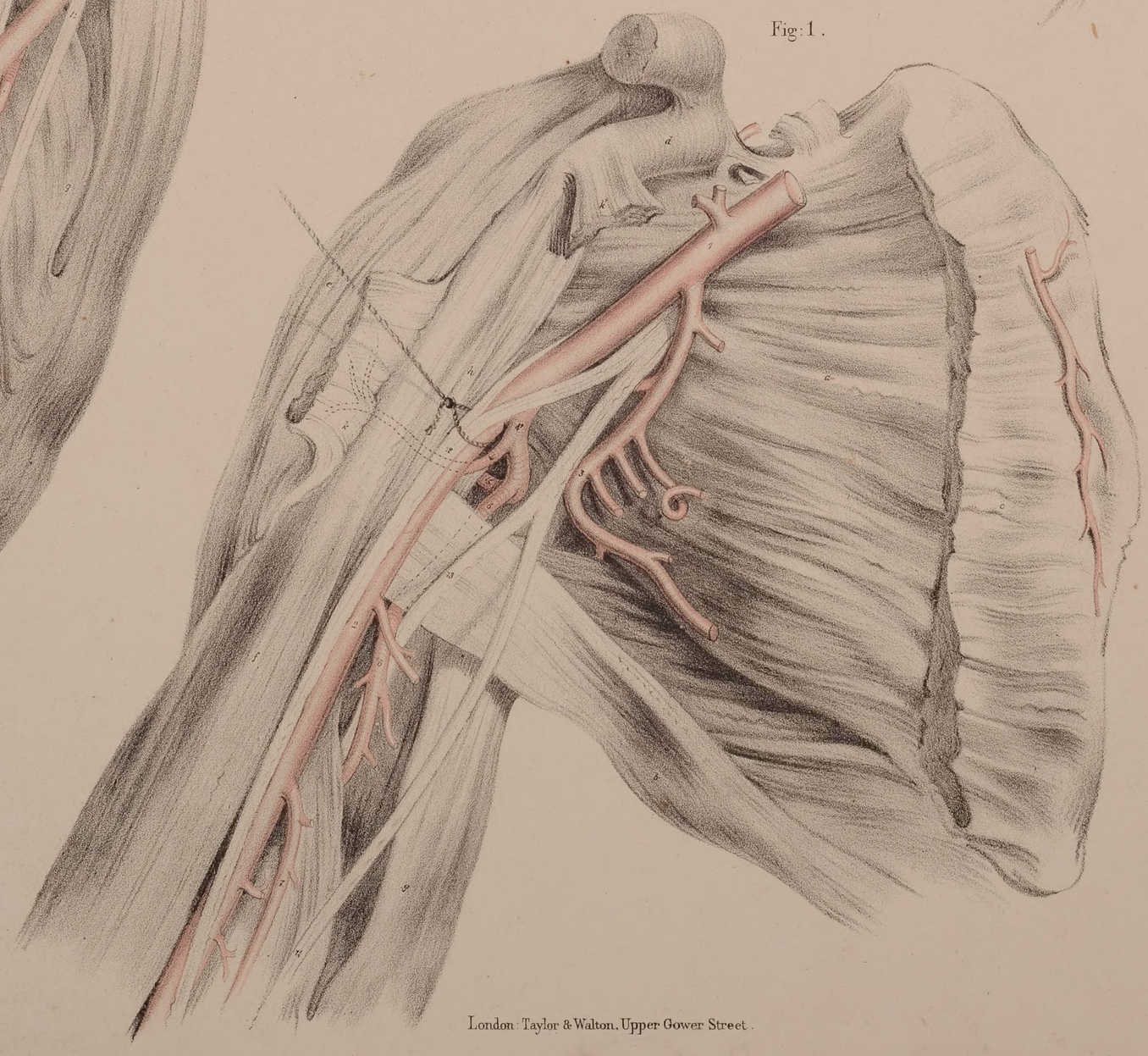

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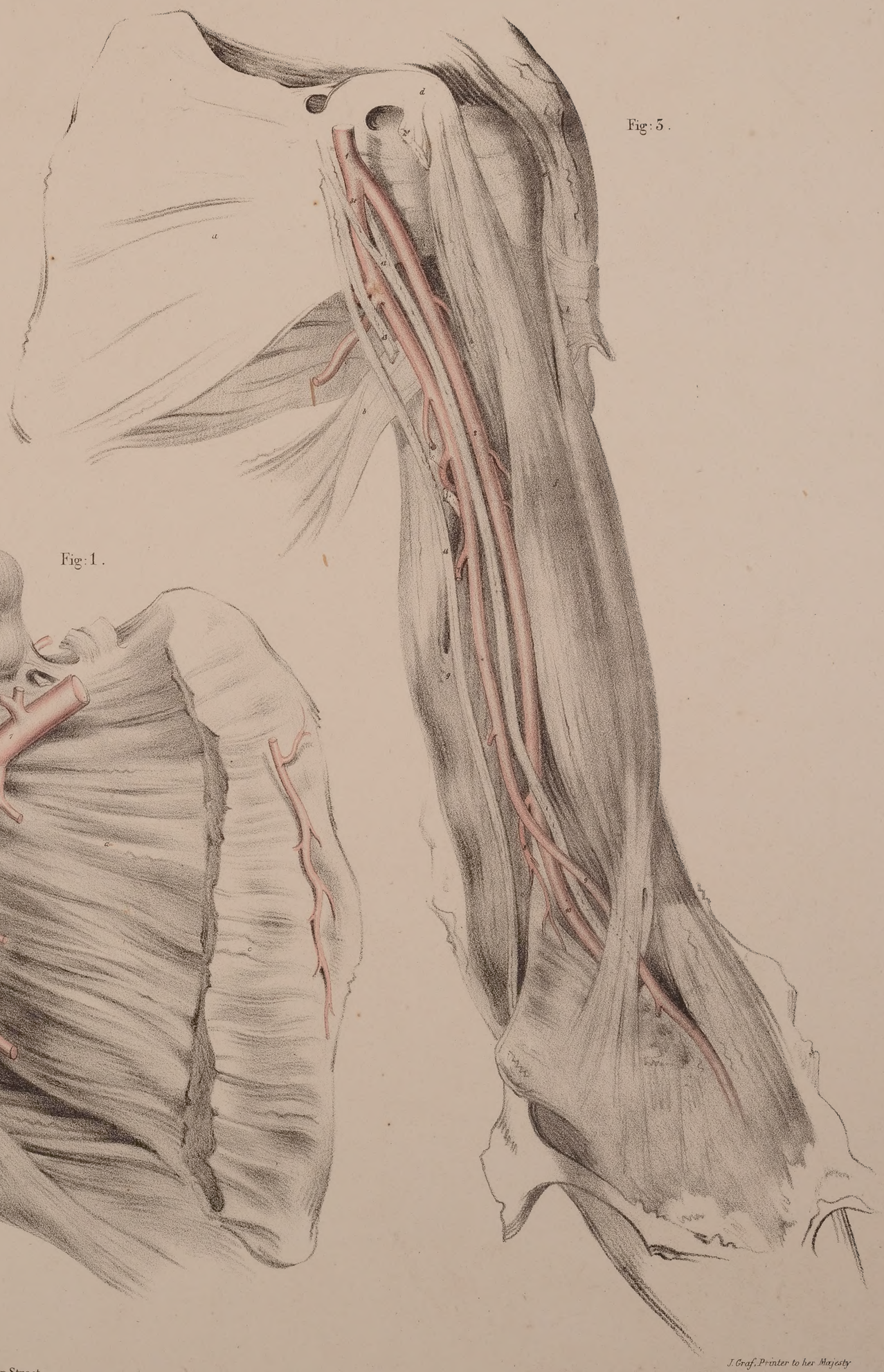

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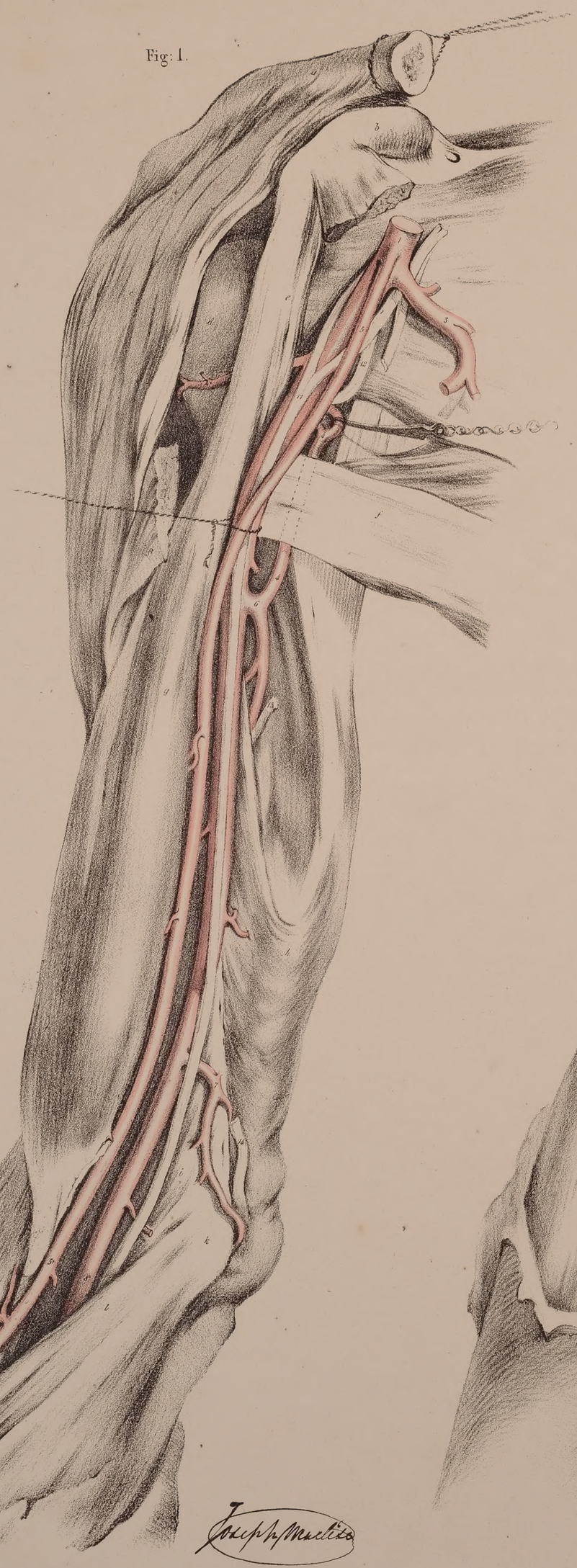
Fig: 1.



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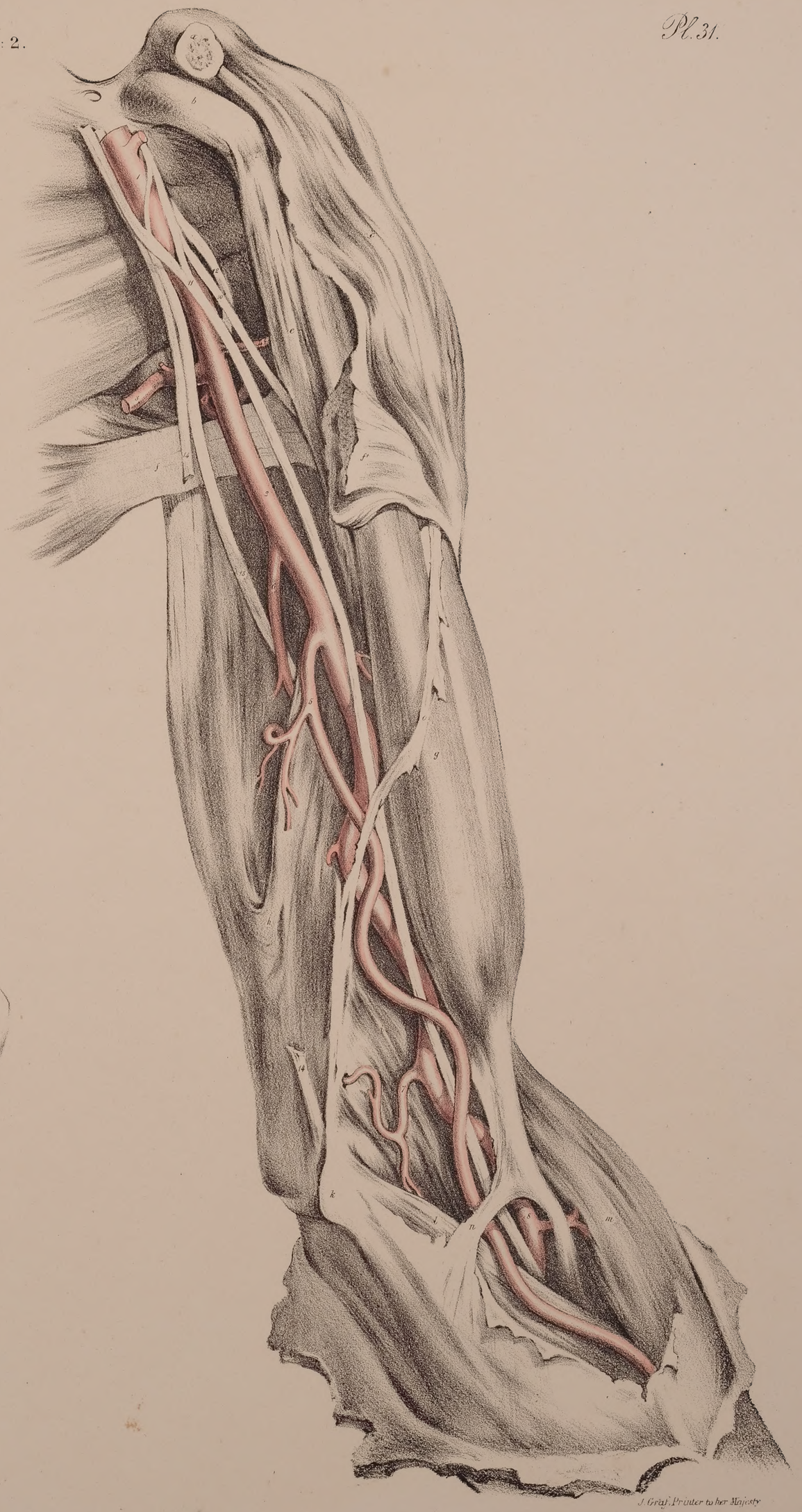

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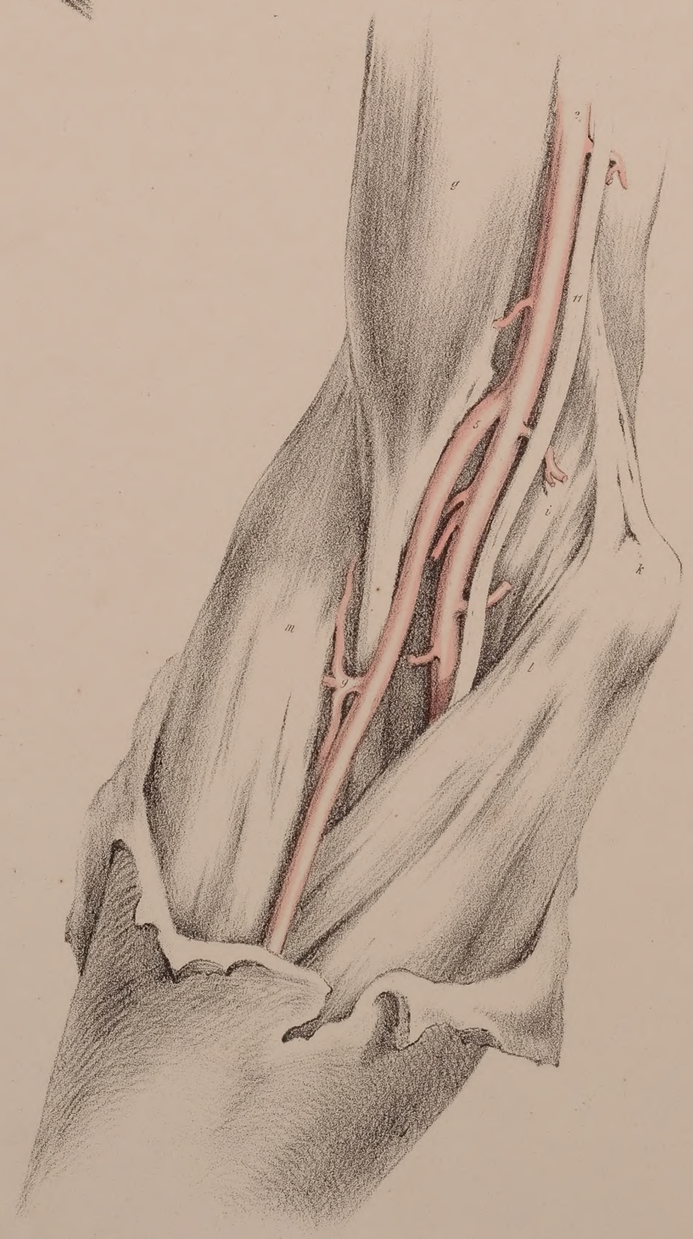

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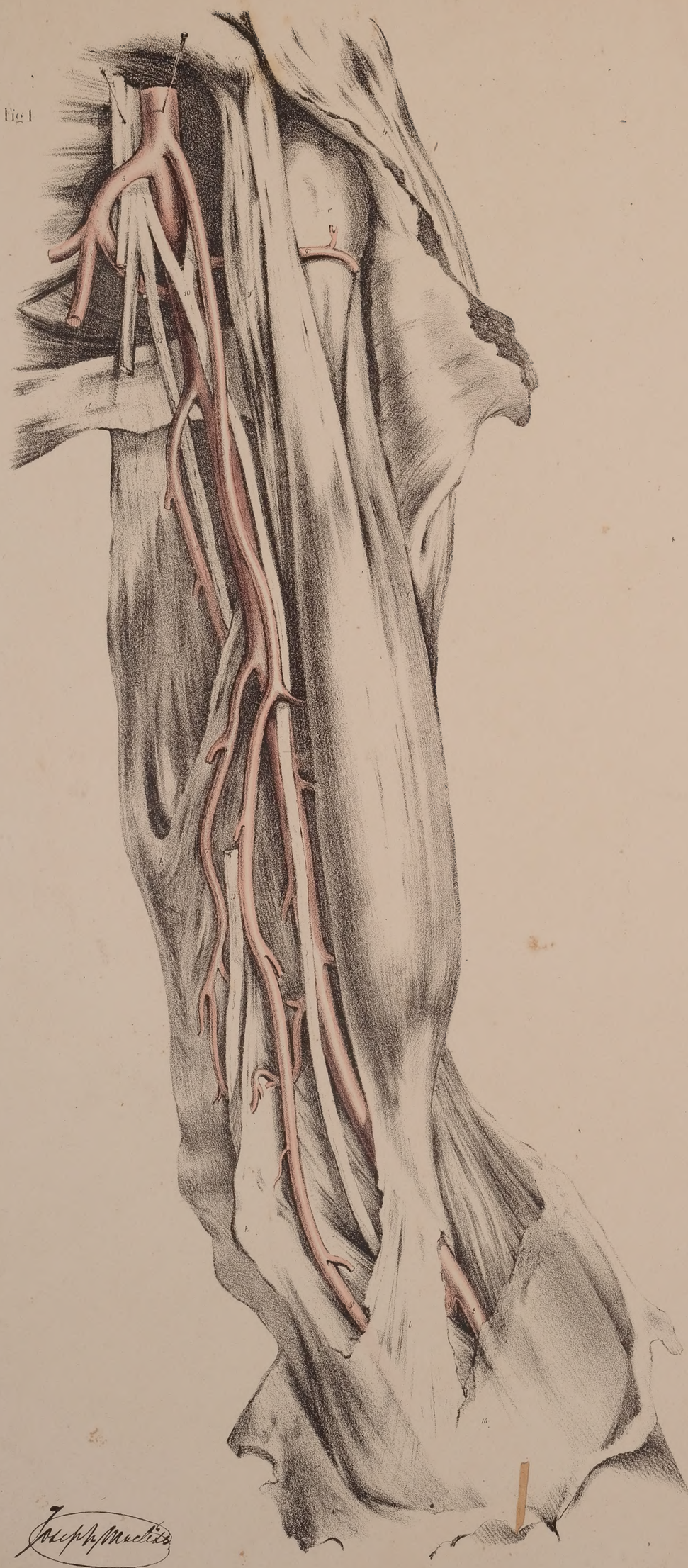
Fig: 1



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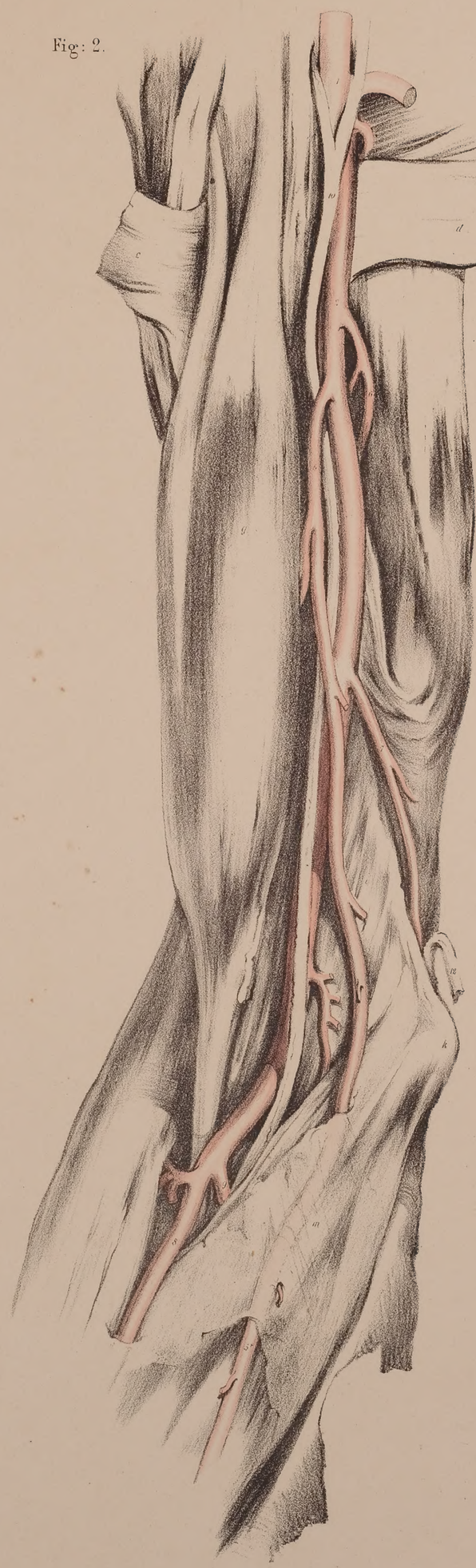

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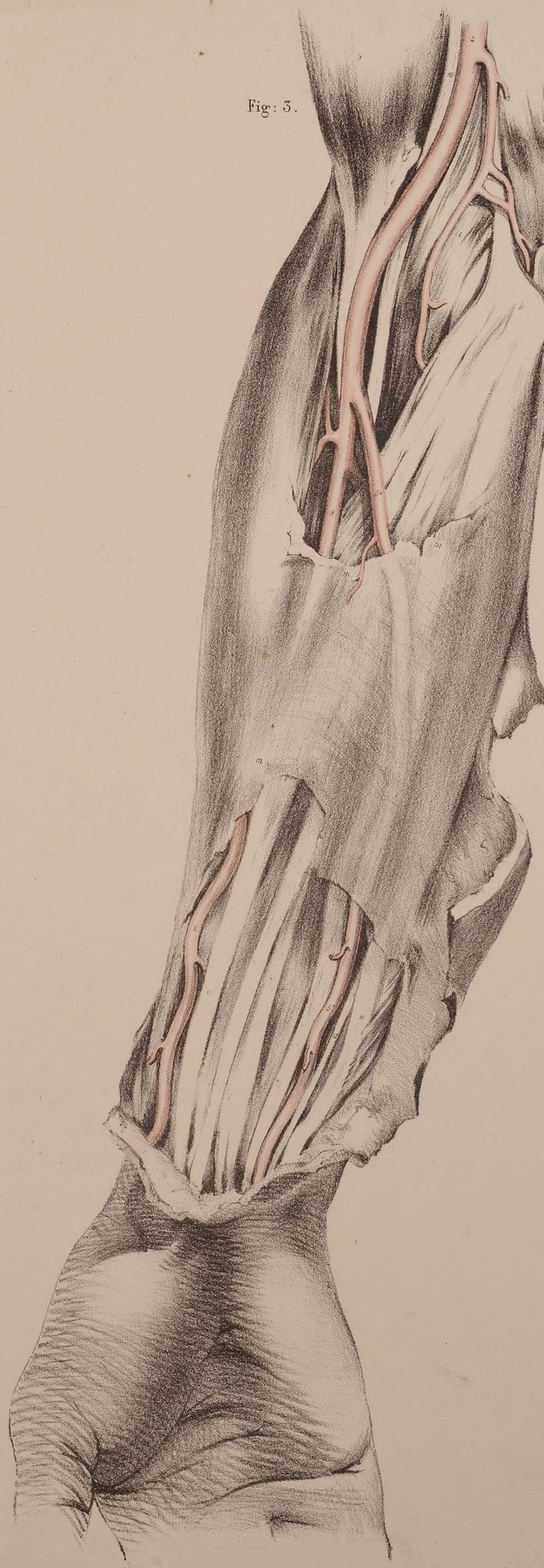

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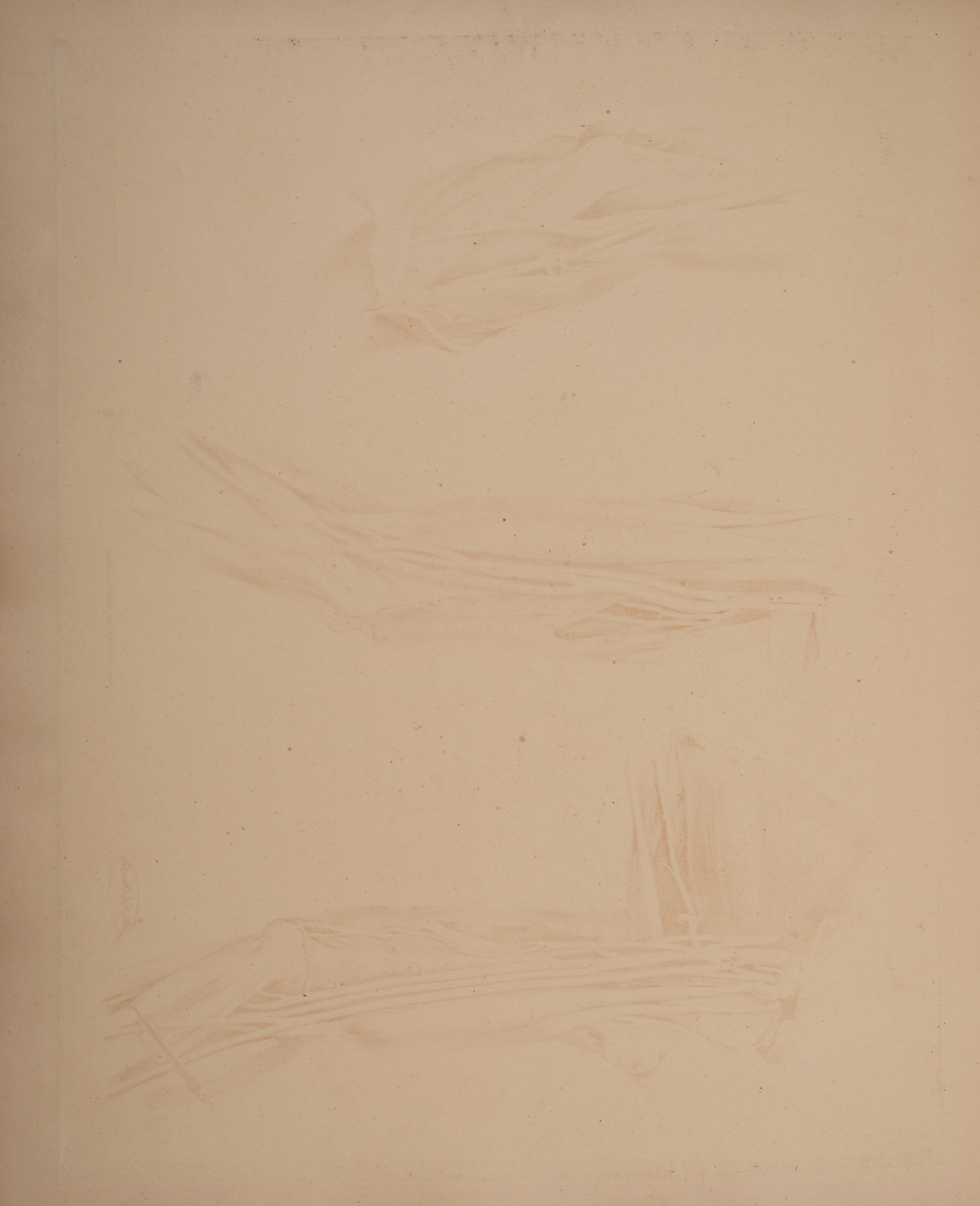

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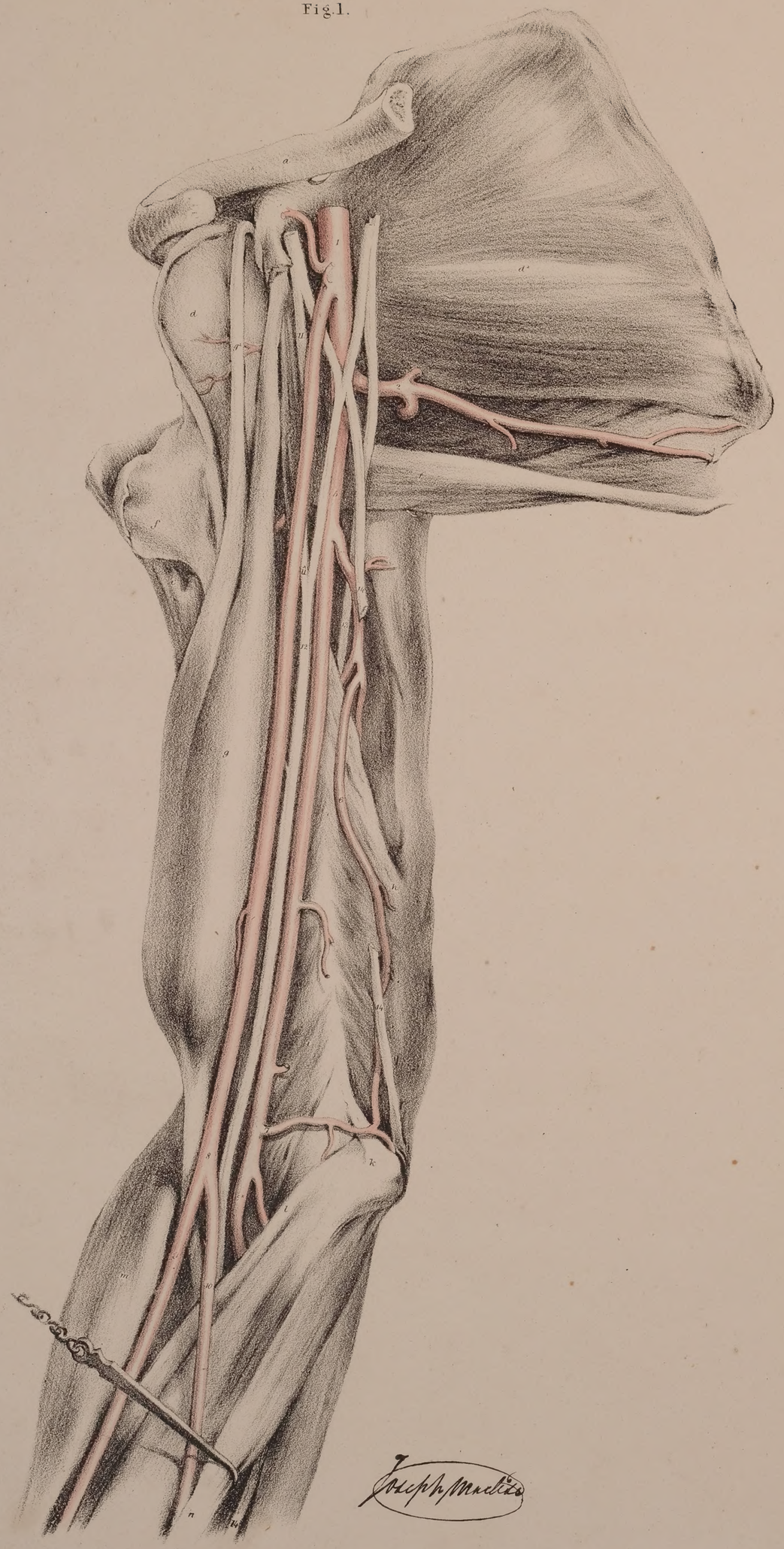

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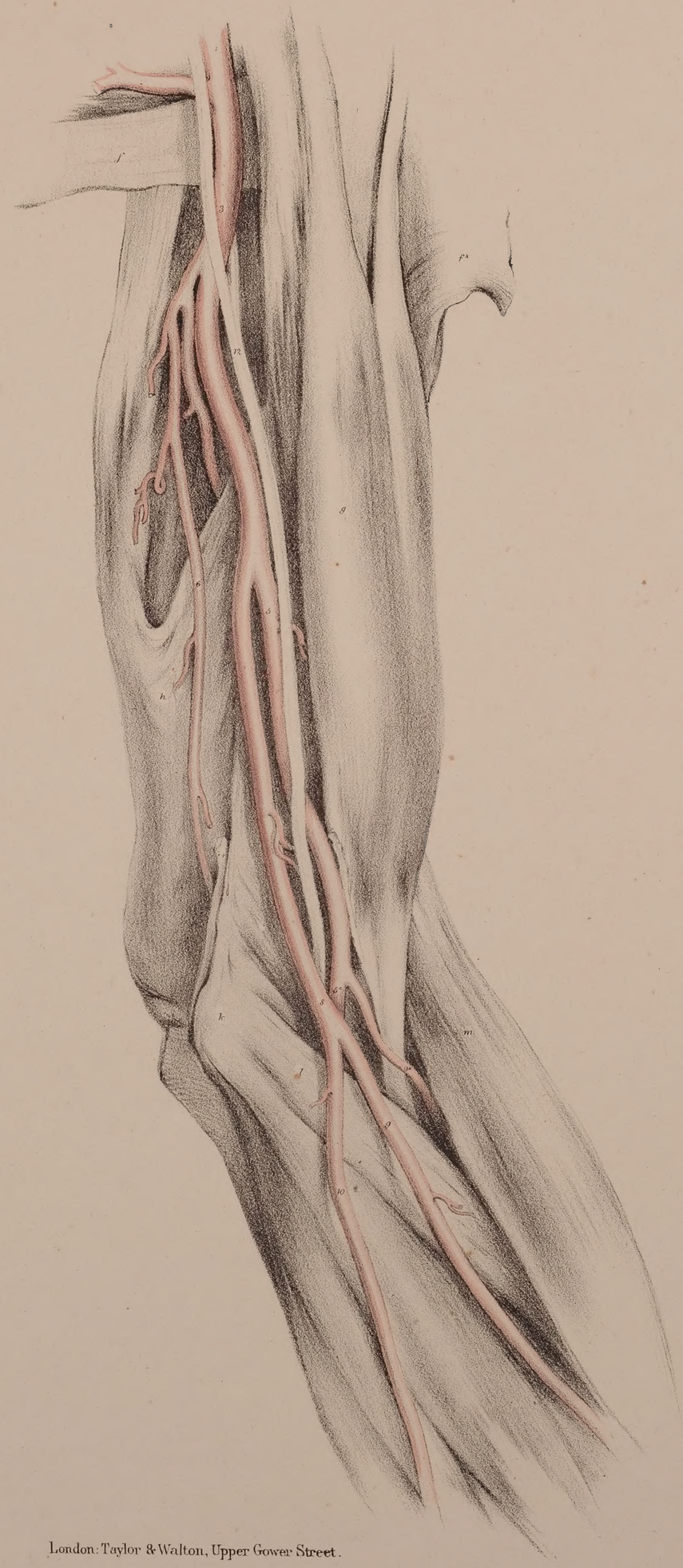

Fig. 3.

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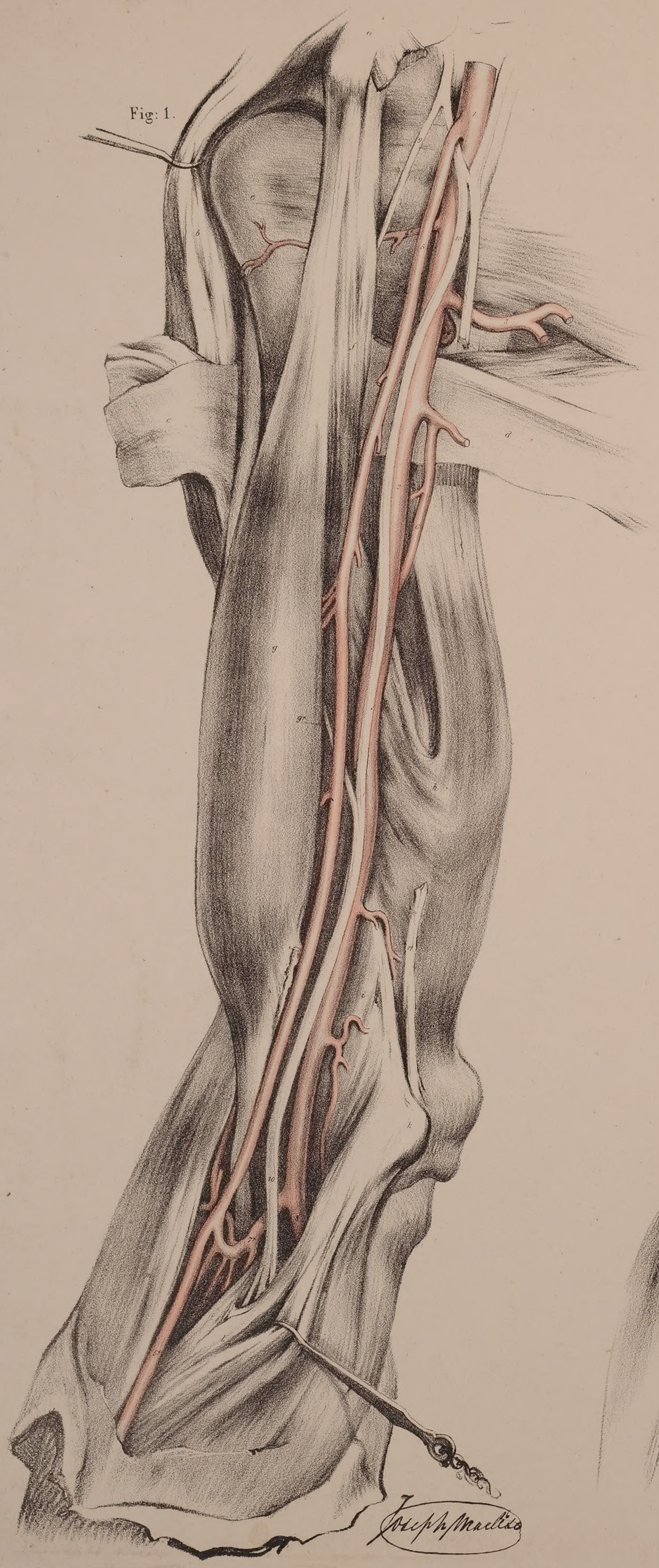

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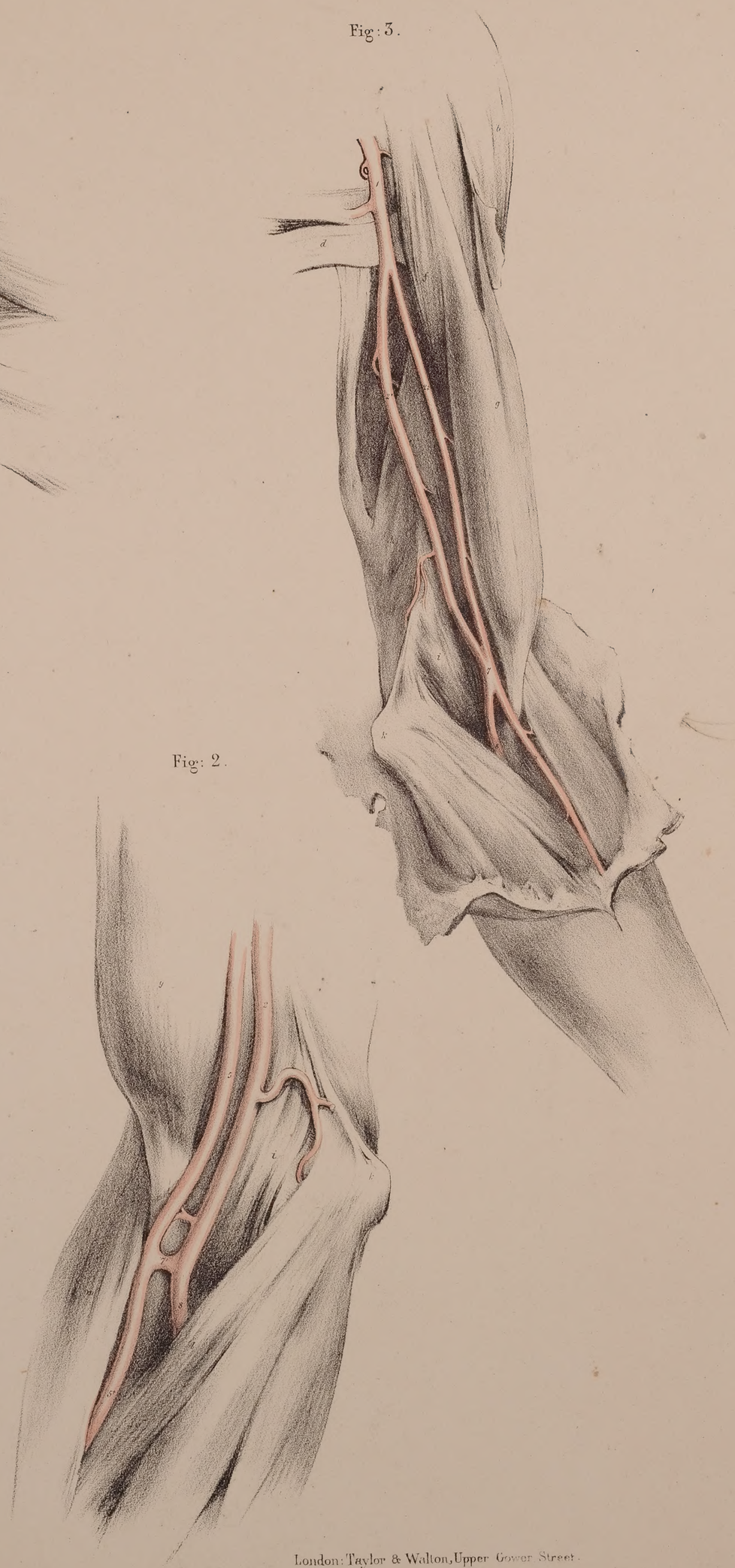

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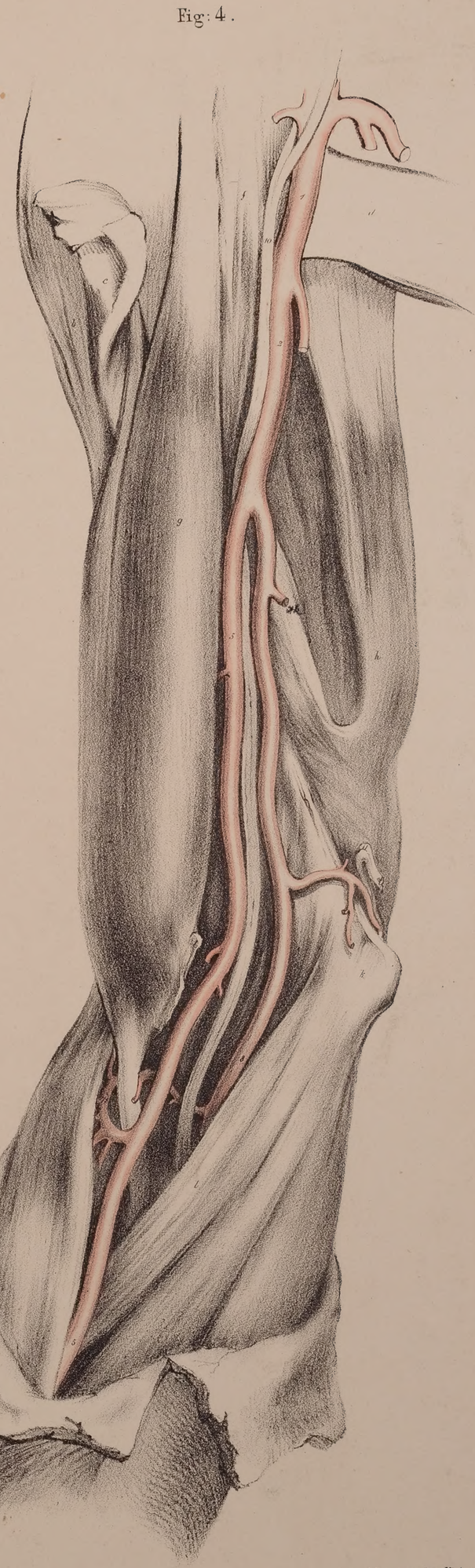

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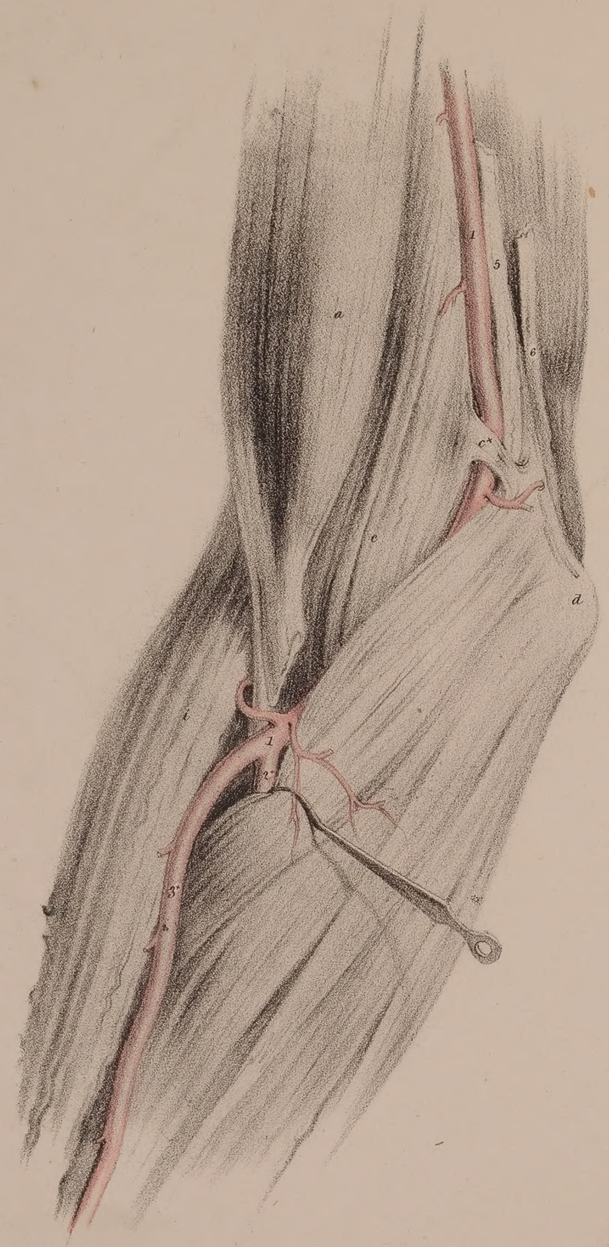

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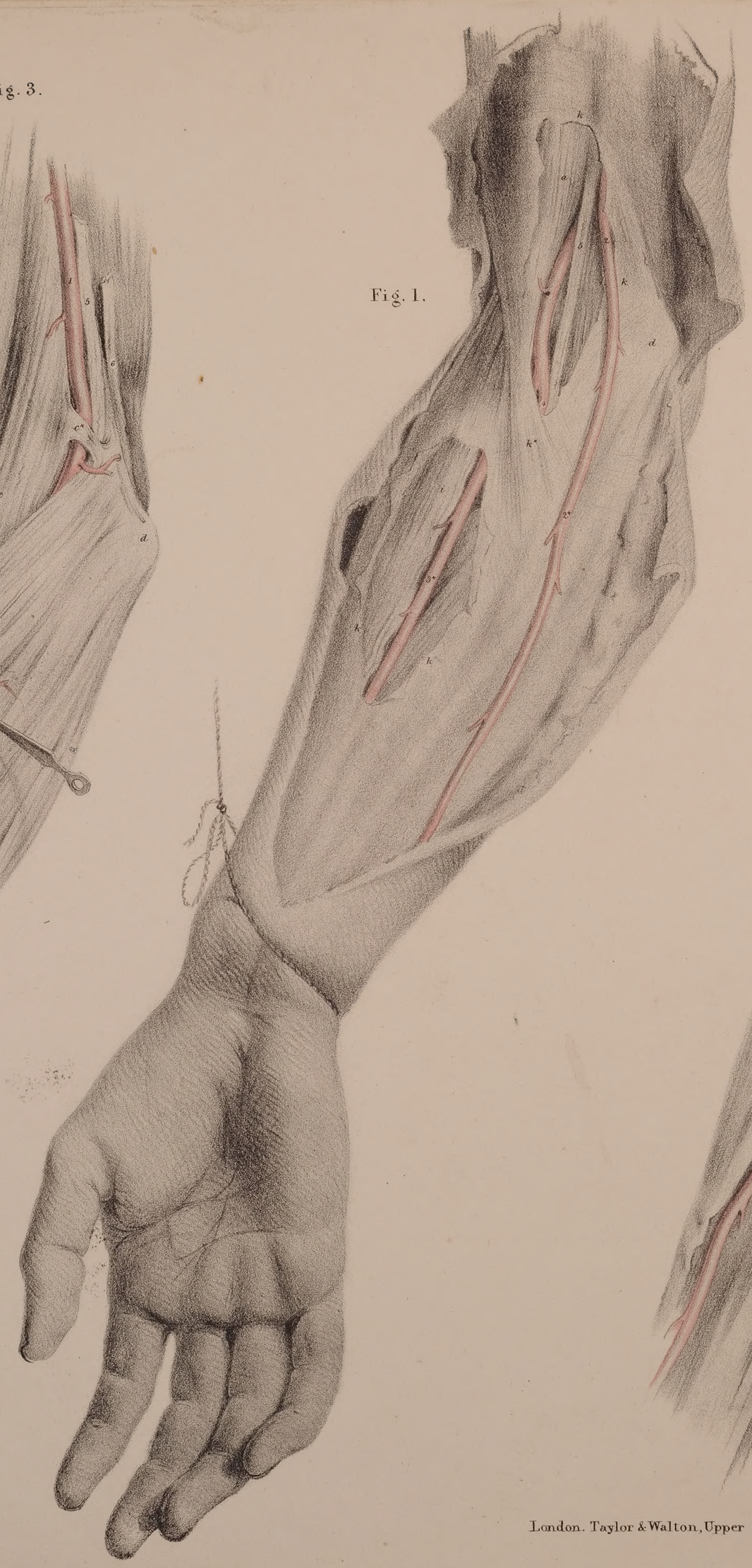

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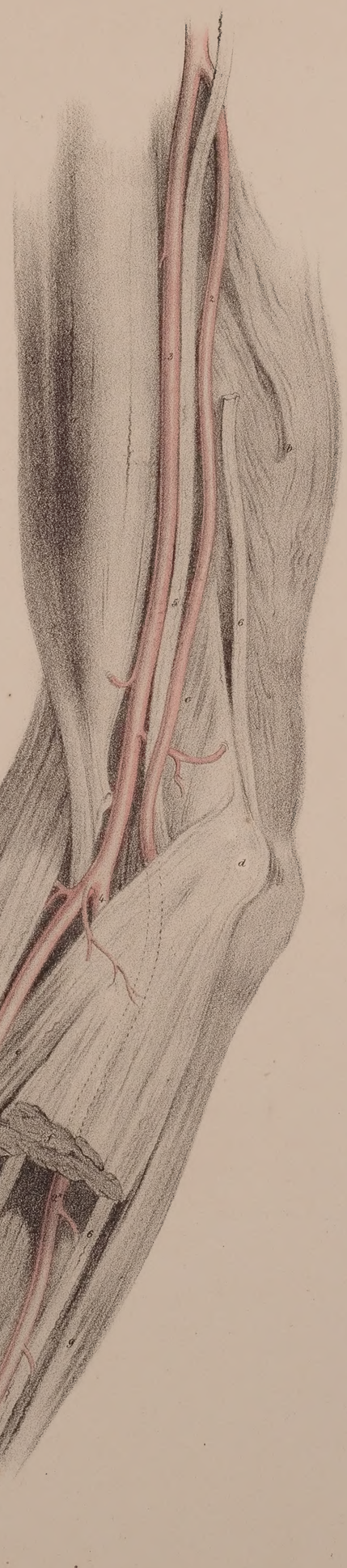

Fig. 4.

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Fig. 3.

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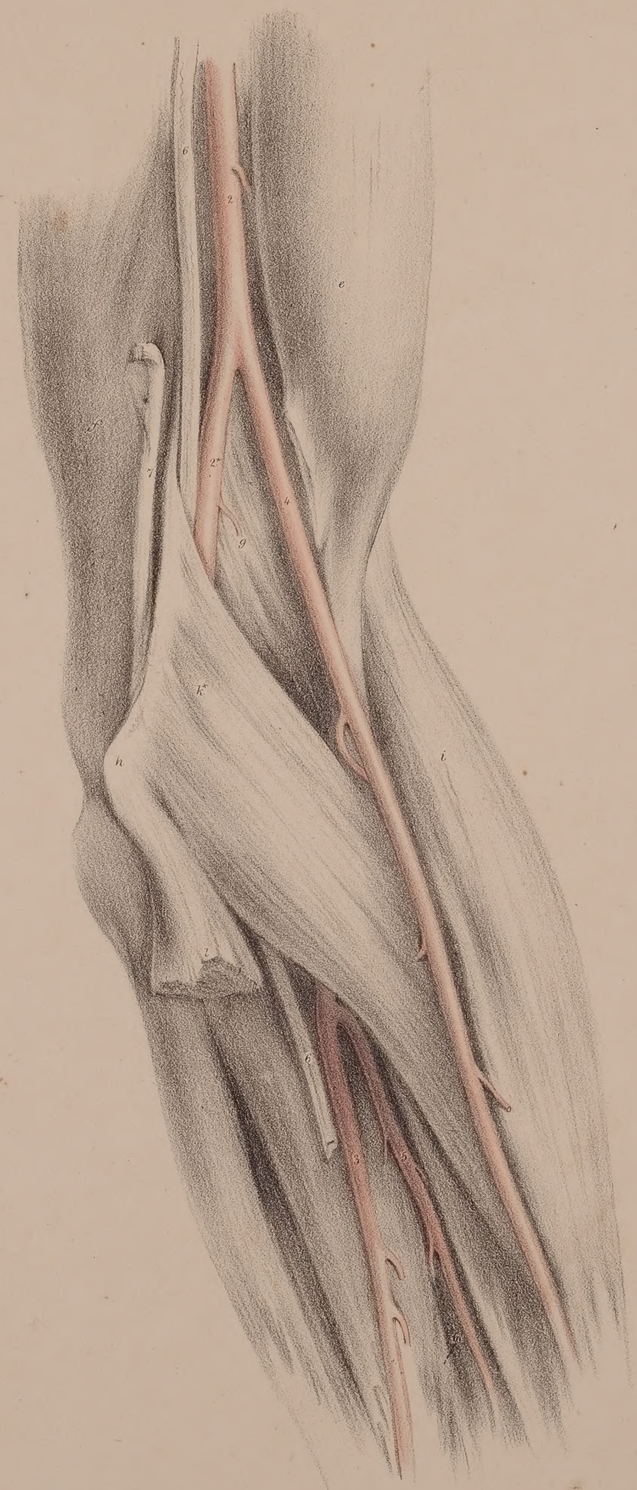

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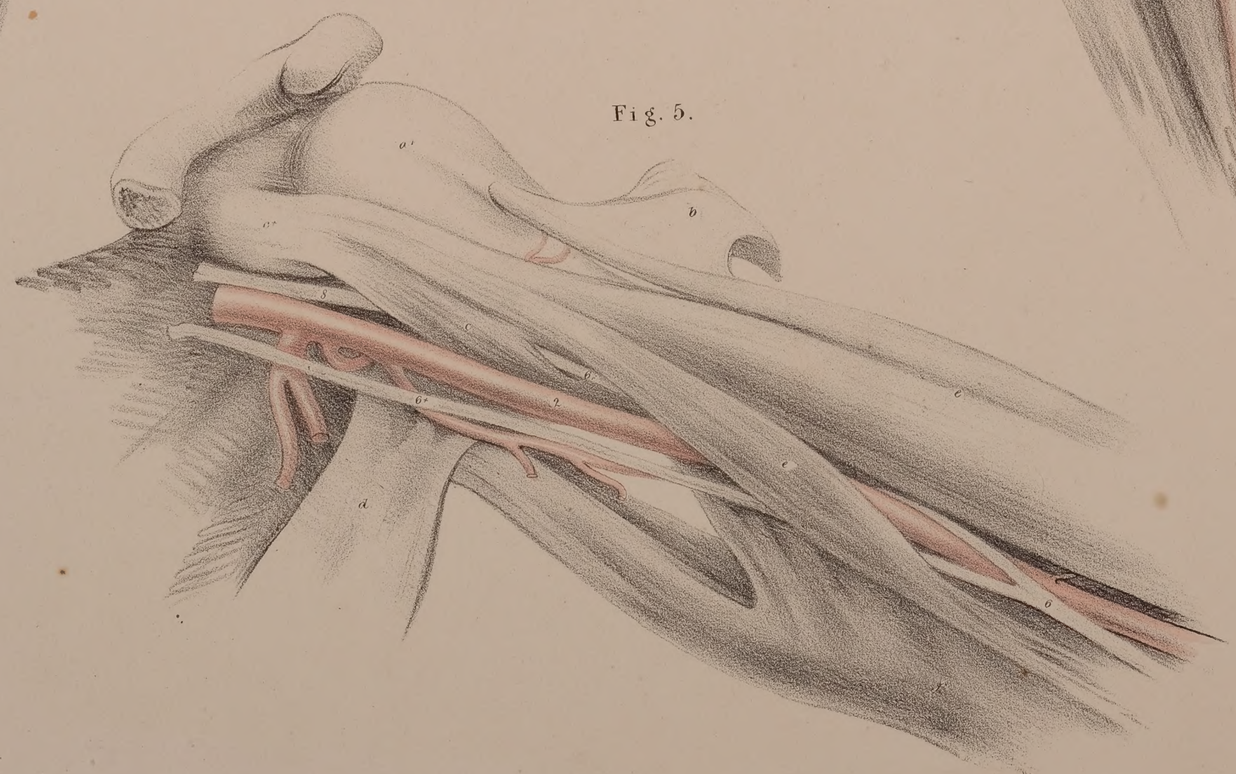

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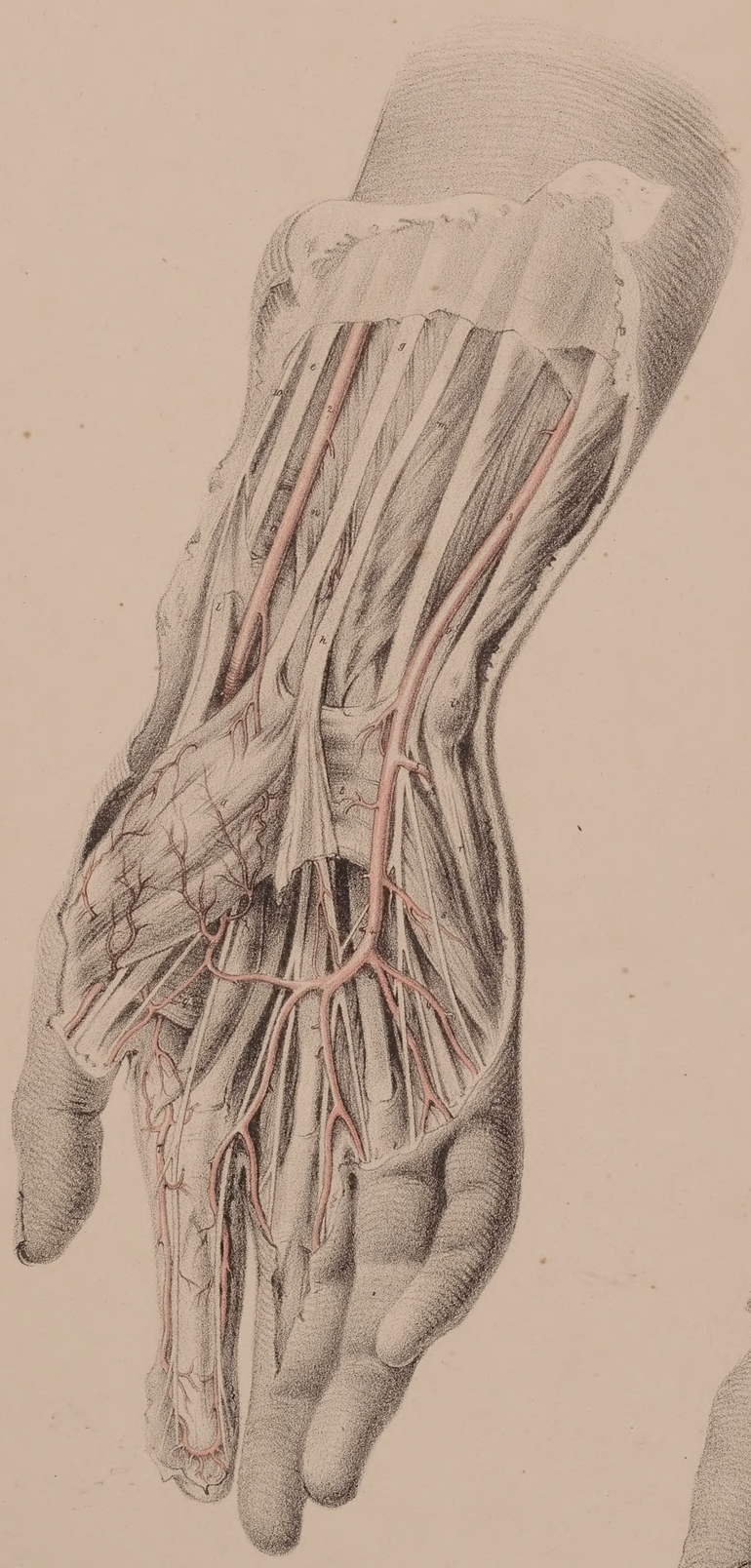
Fig. 1.

Fig. 2.



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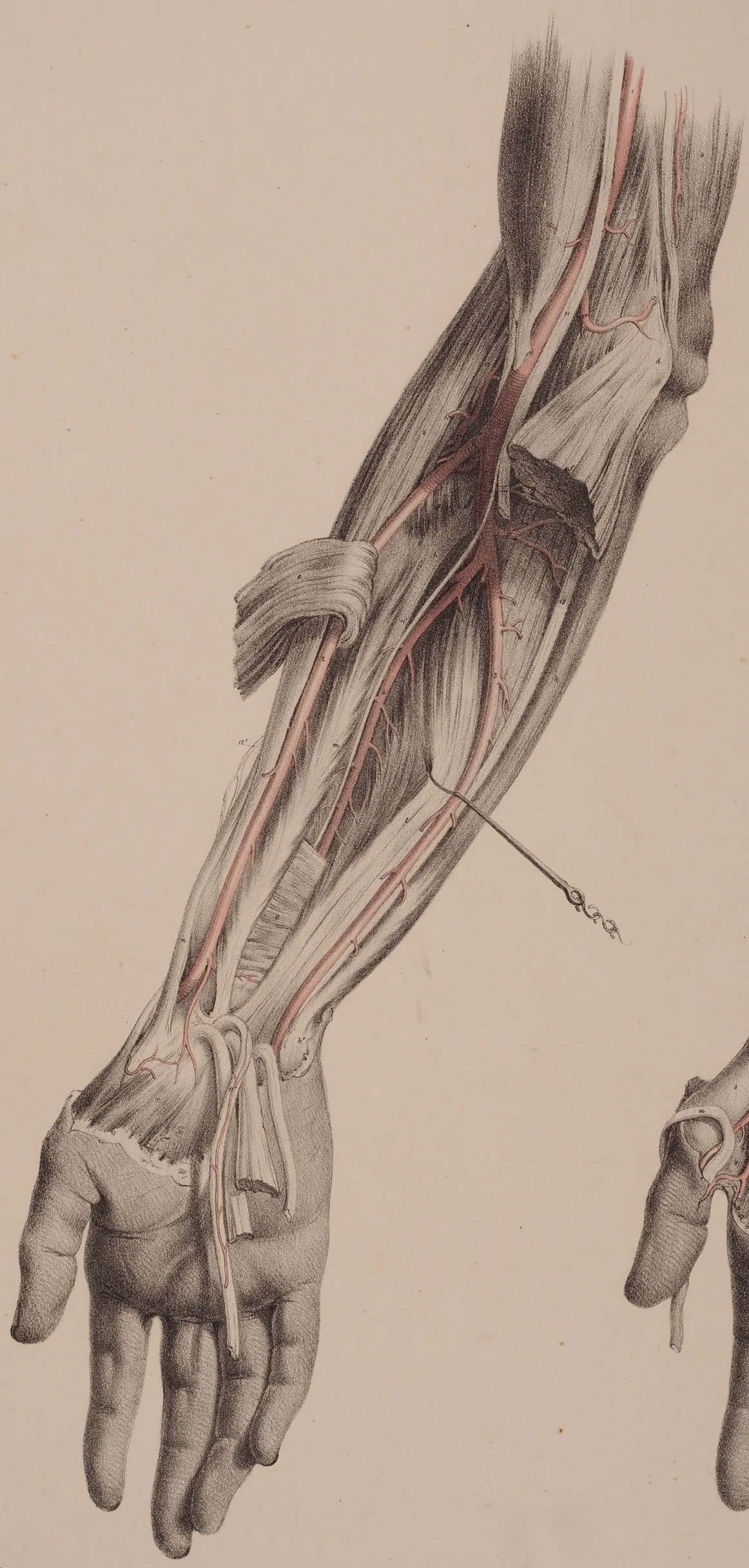

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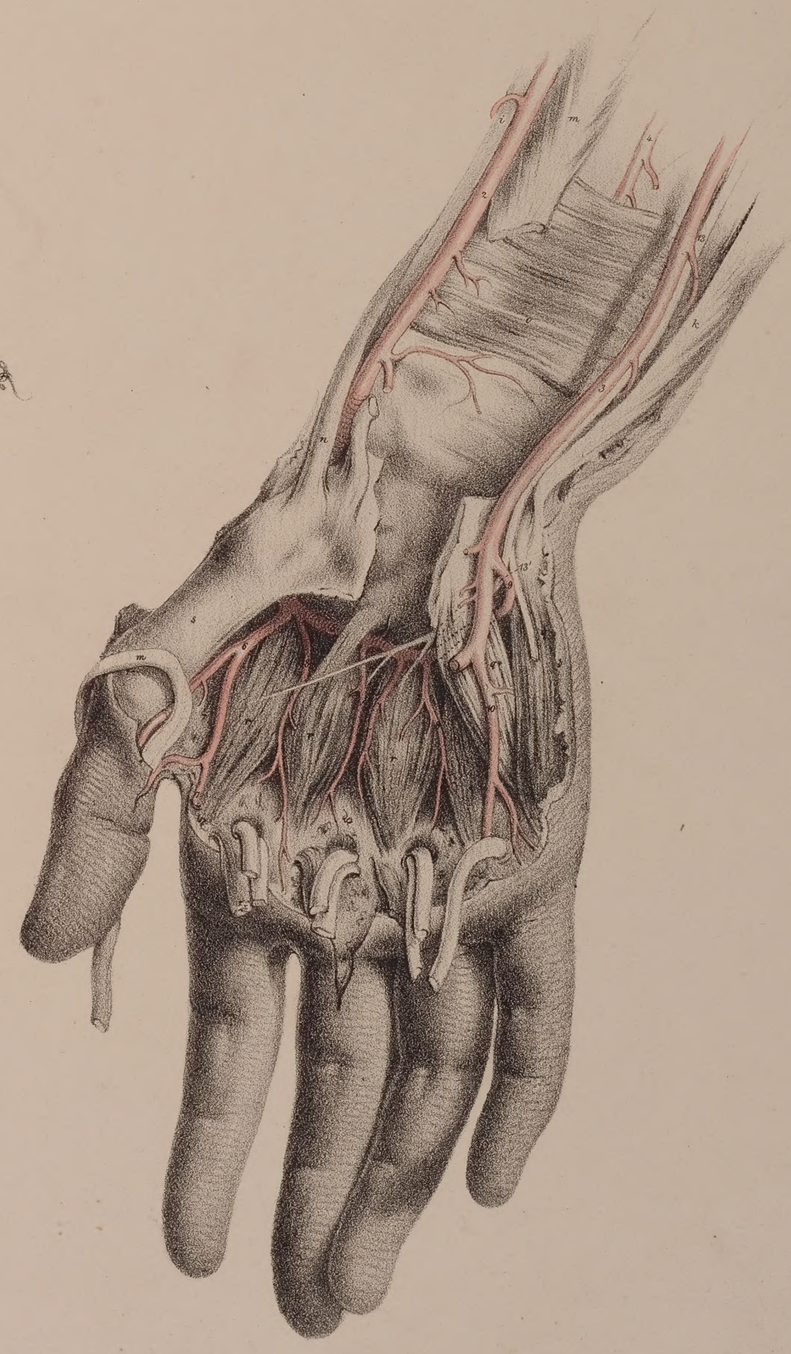

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Fig. 1.

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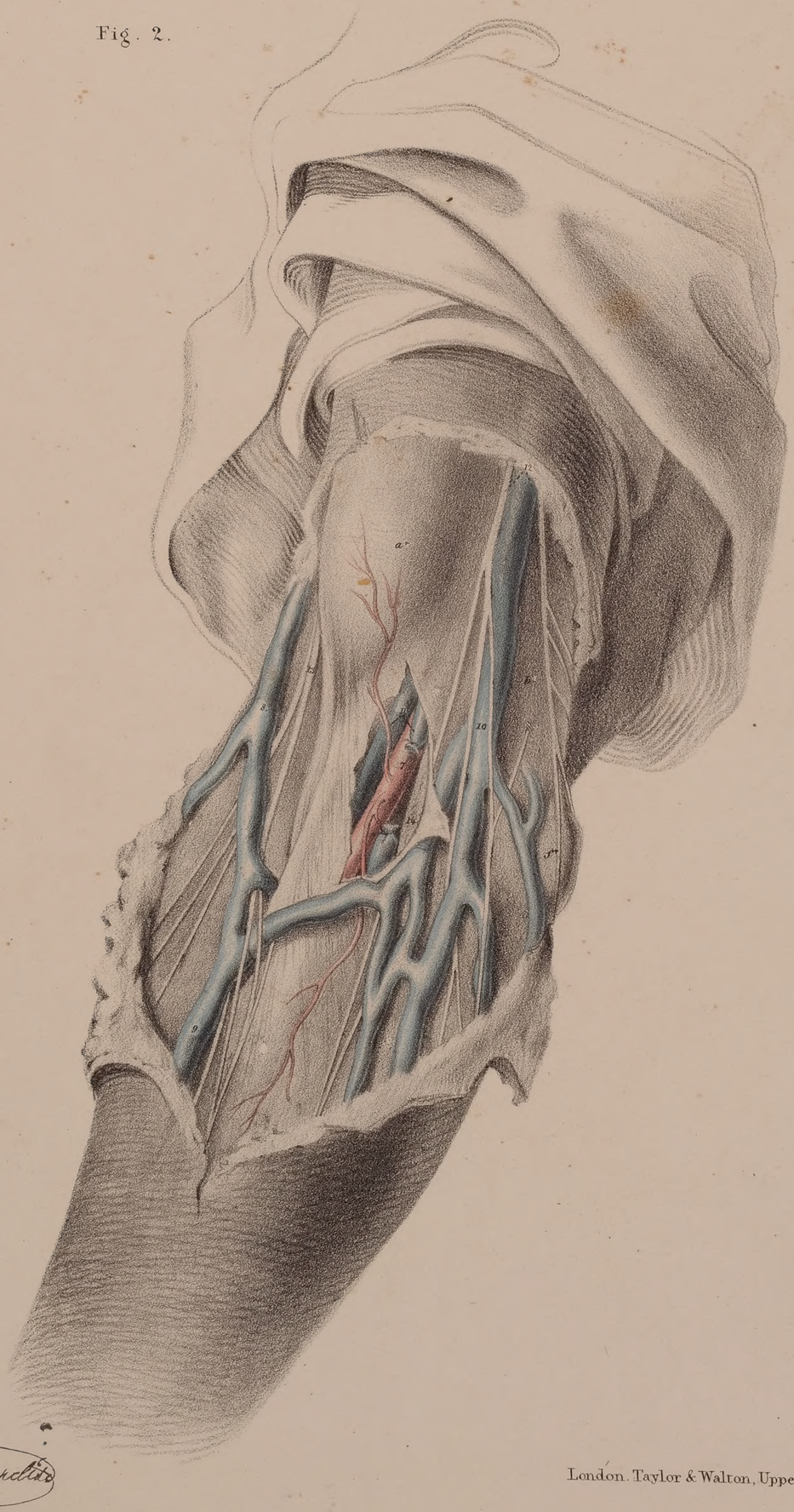

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Pl. 41.

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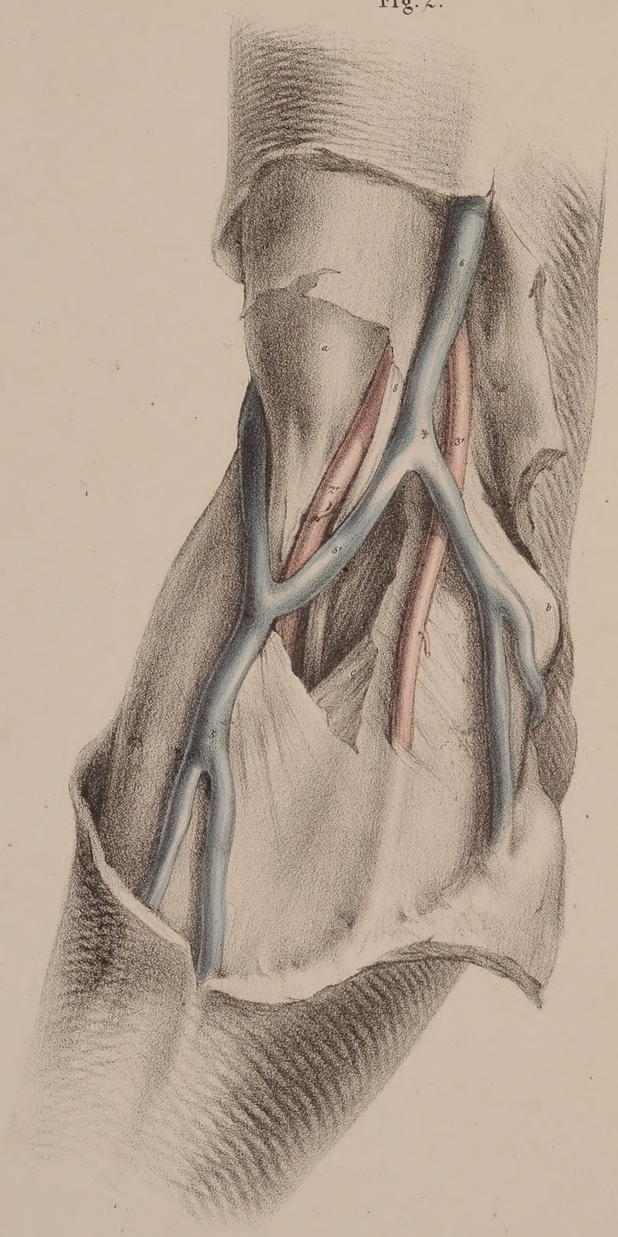

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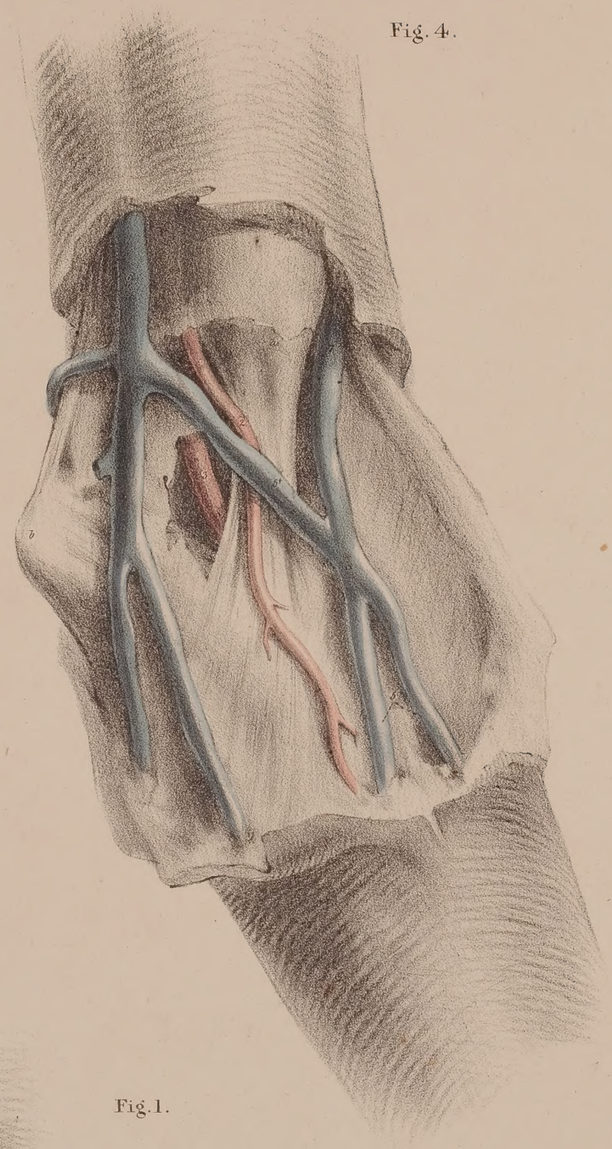

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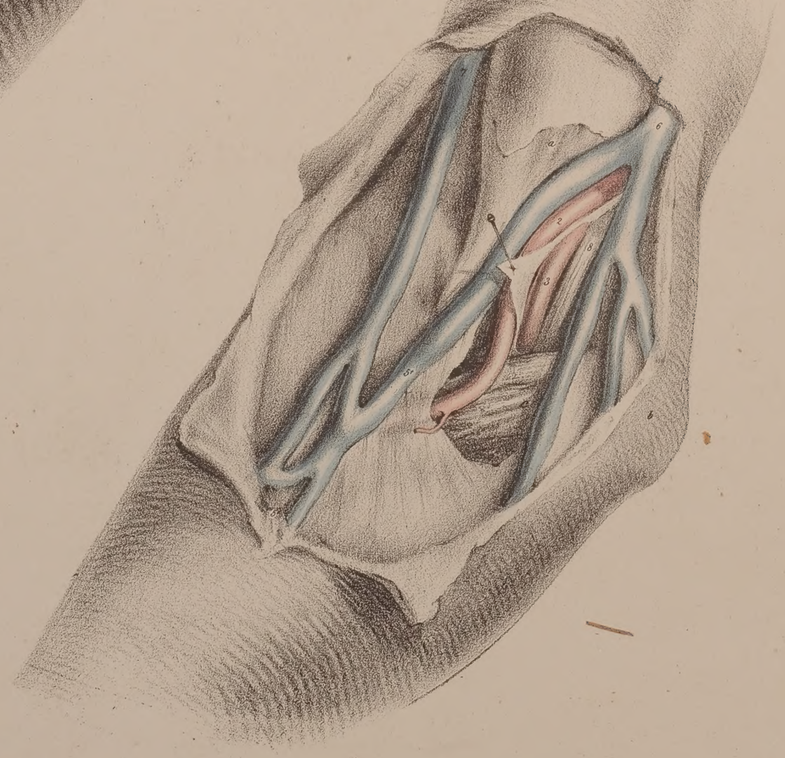

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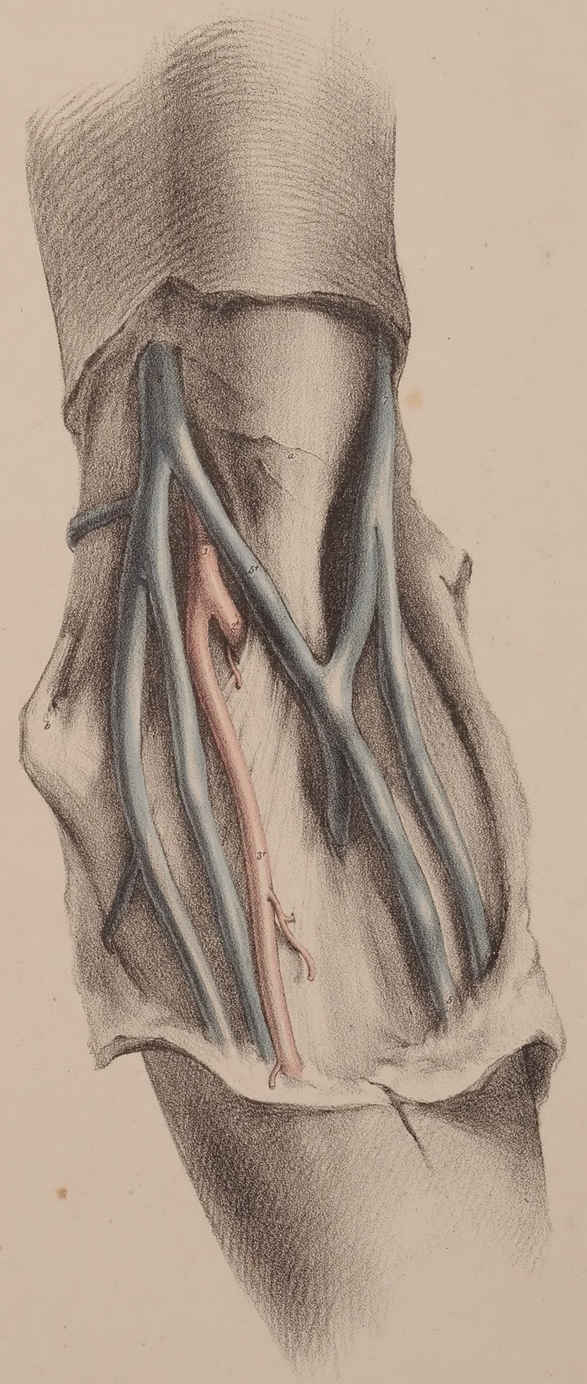

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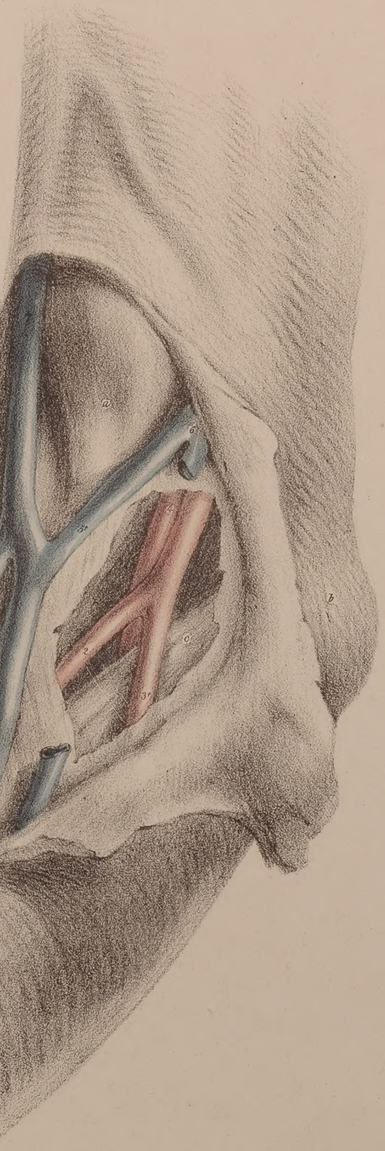

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Pl. 42

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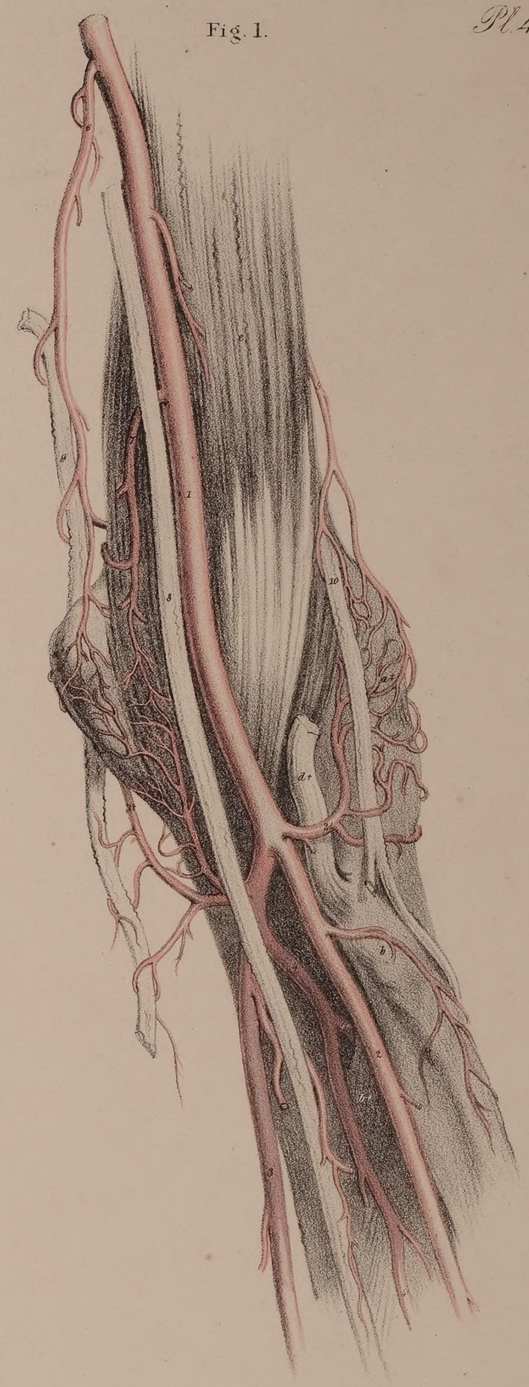

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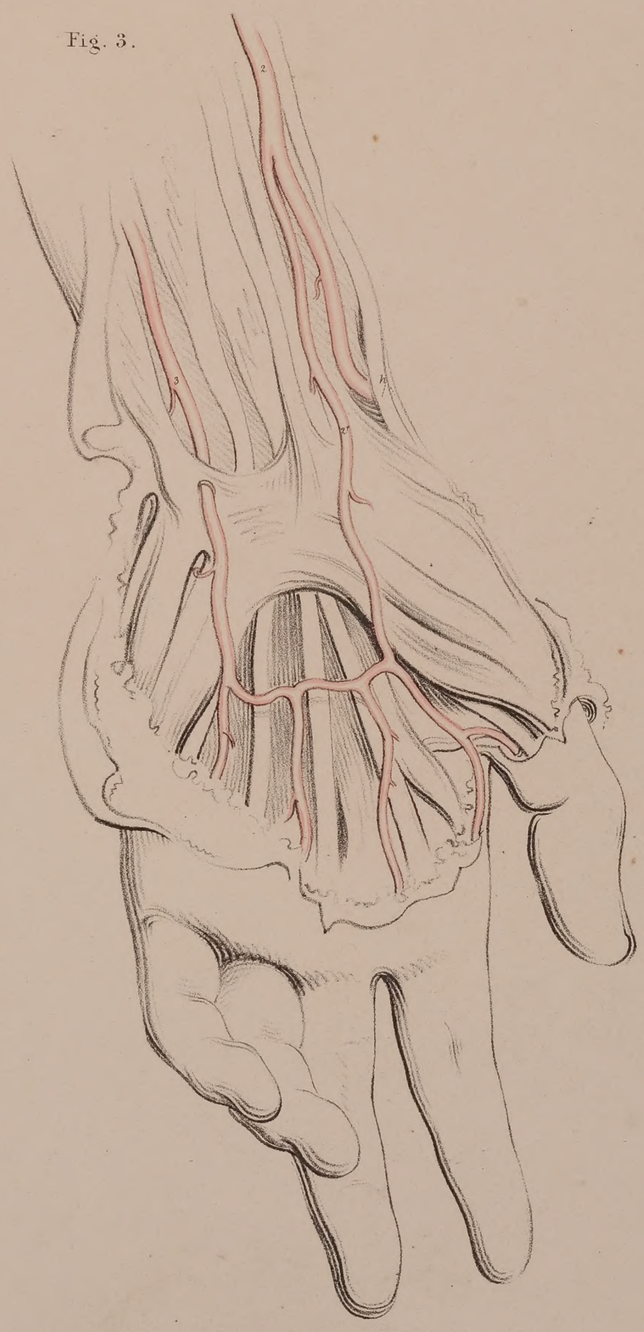

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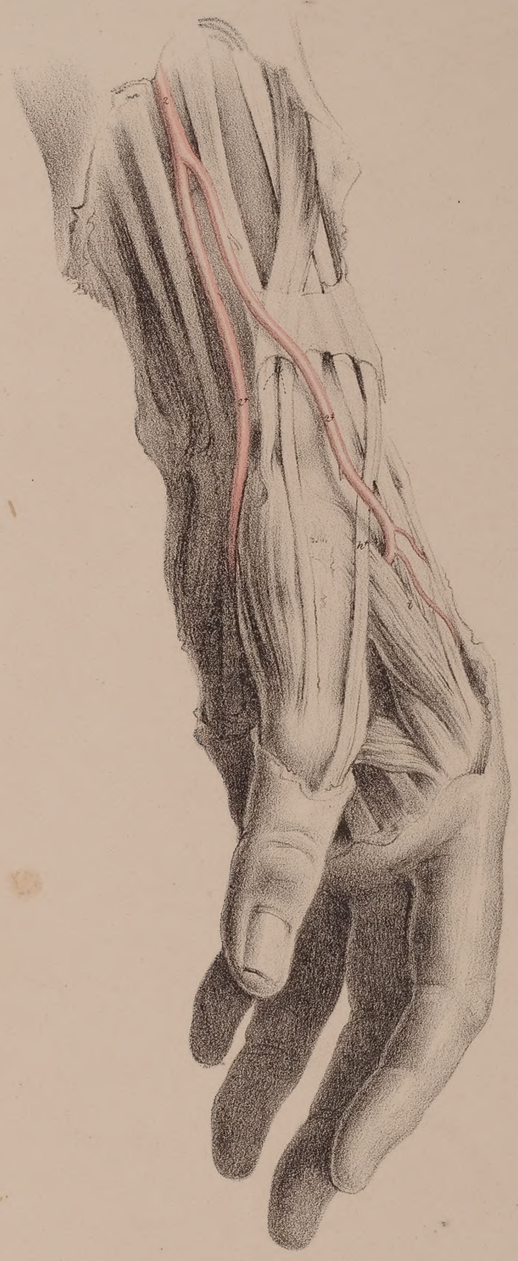

Fig. 5.

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Fig. 2.

Fig. 3.

Fig. 1.

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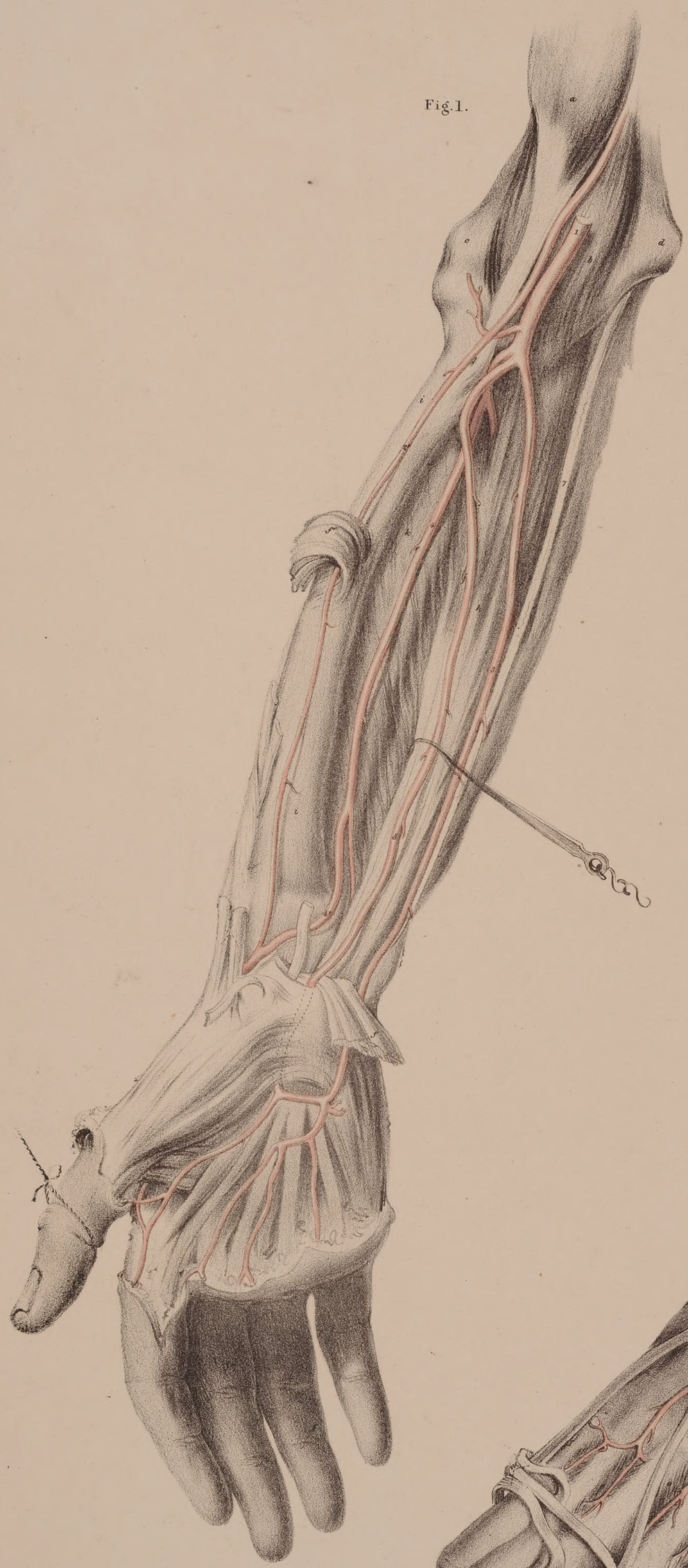
Fig. 1.



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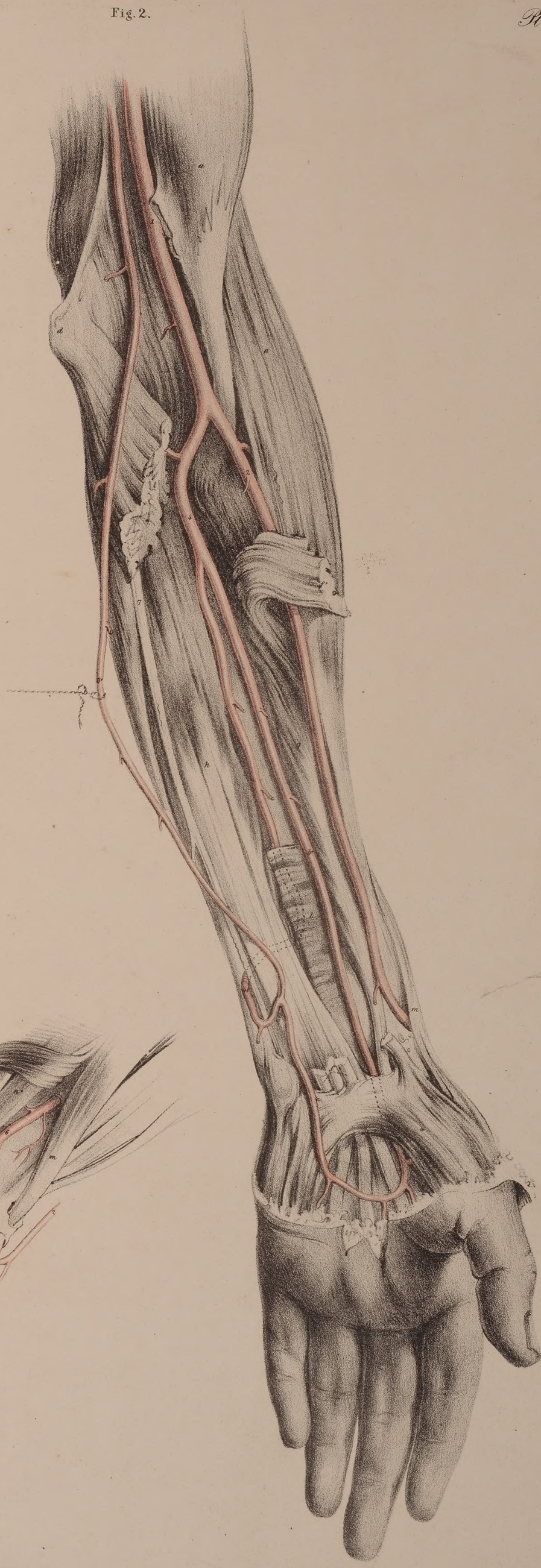

Fig. 3.

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Fig. 2.

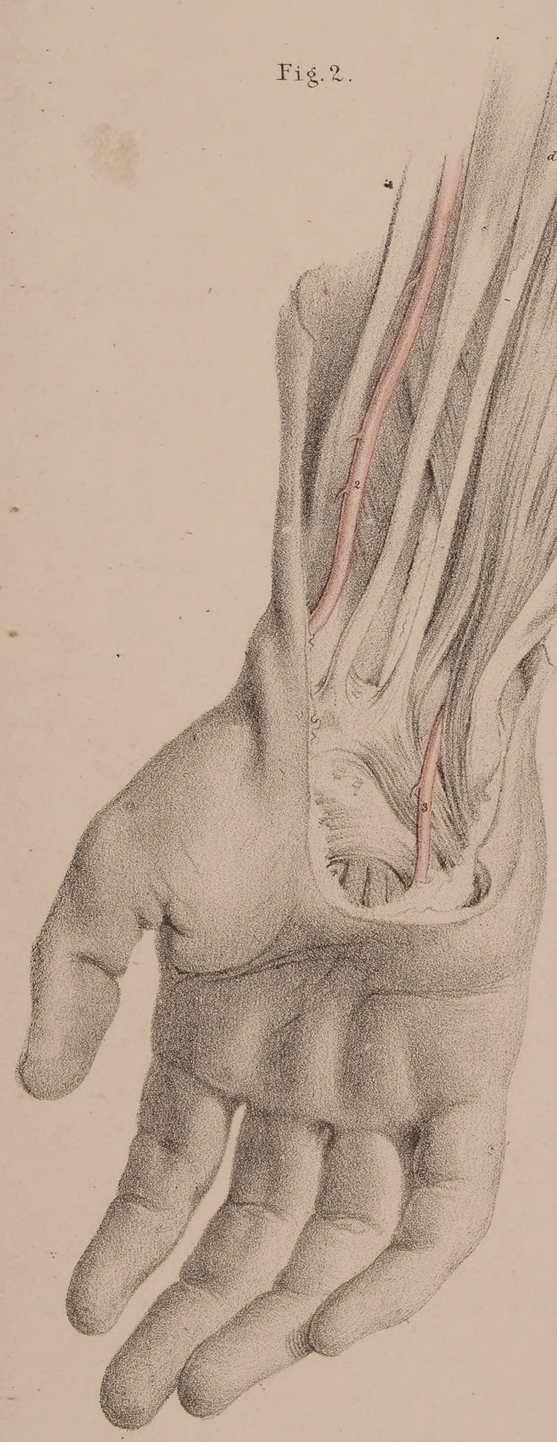
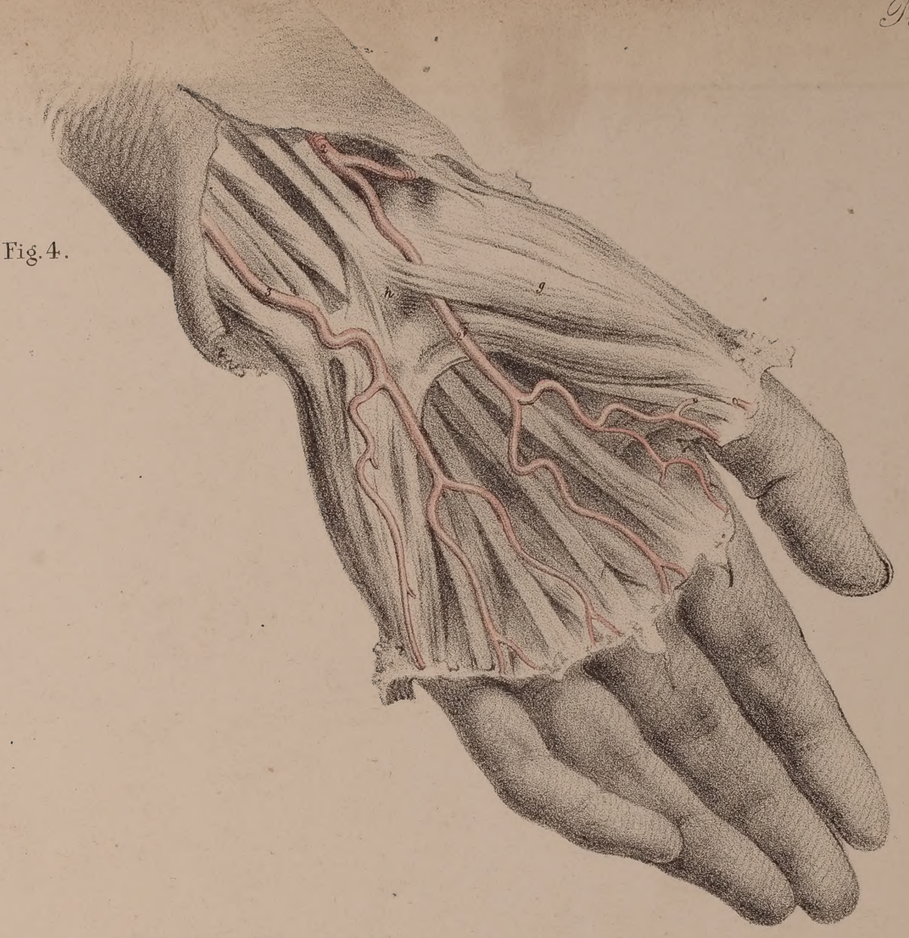


Fig. 1.

Fig. 4.



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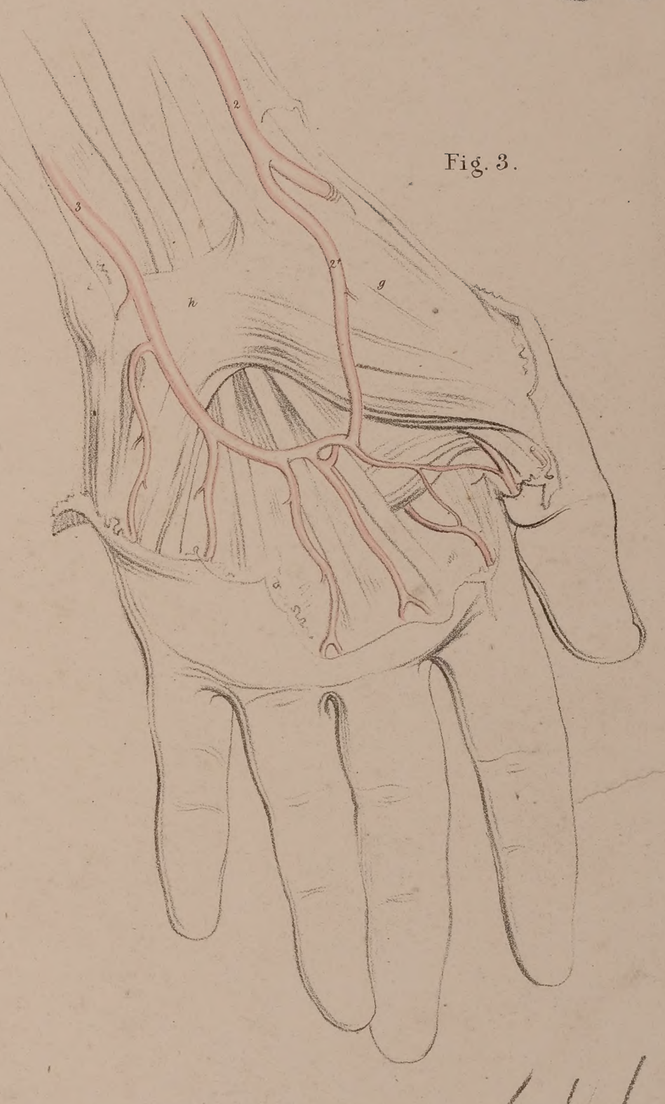

Fig. 6.

Fig. 5.

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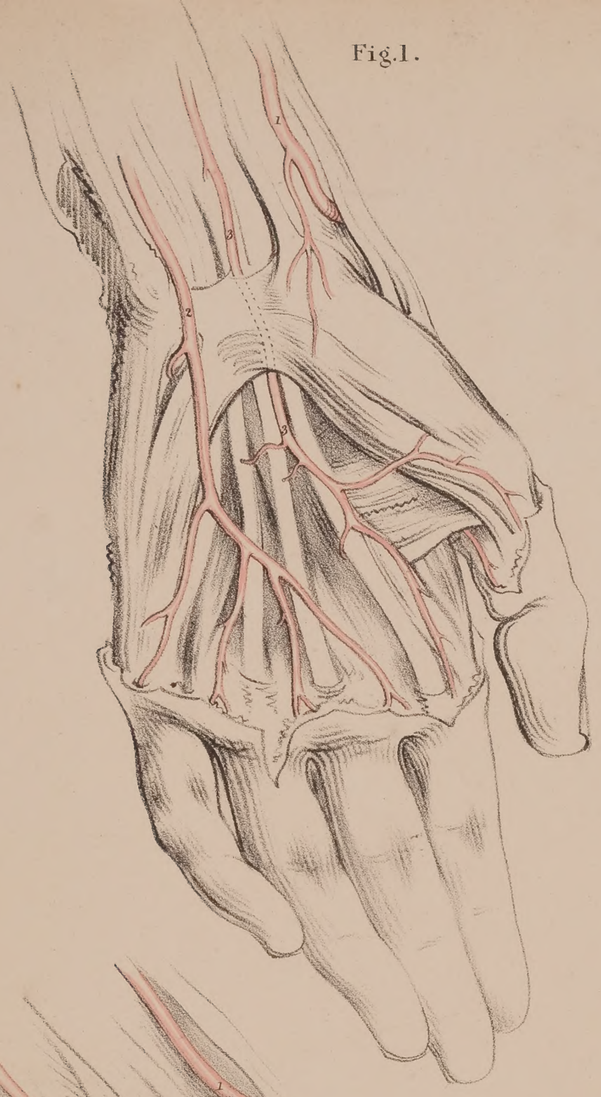
Fig.1.



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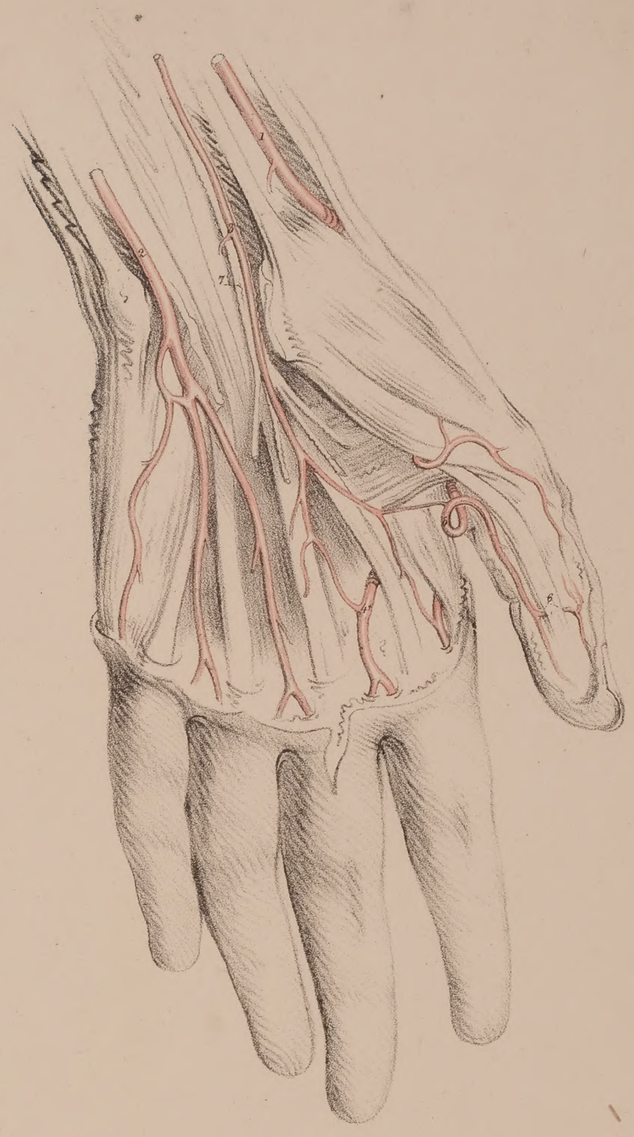

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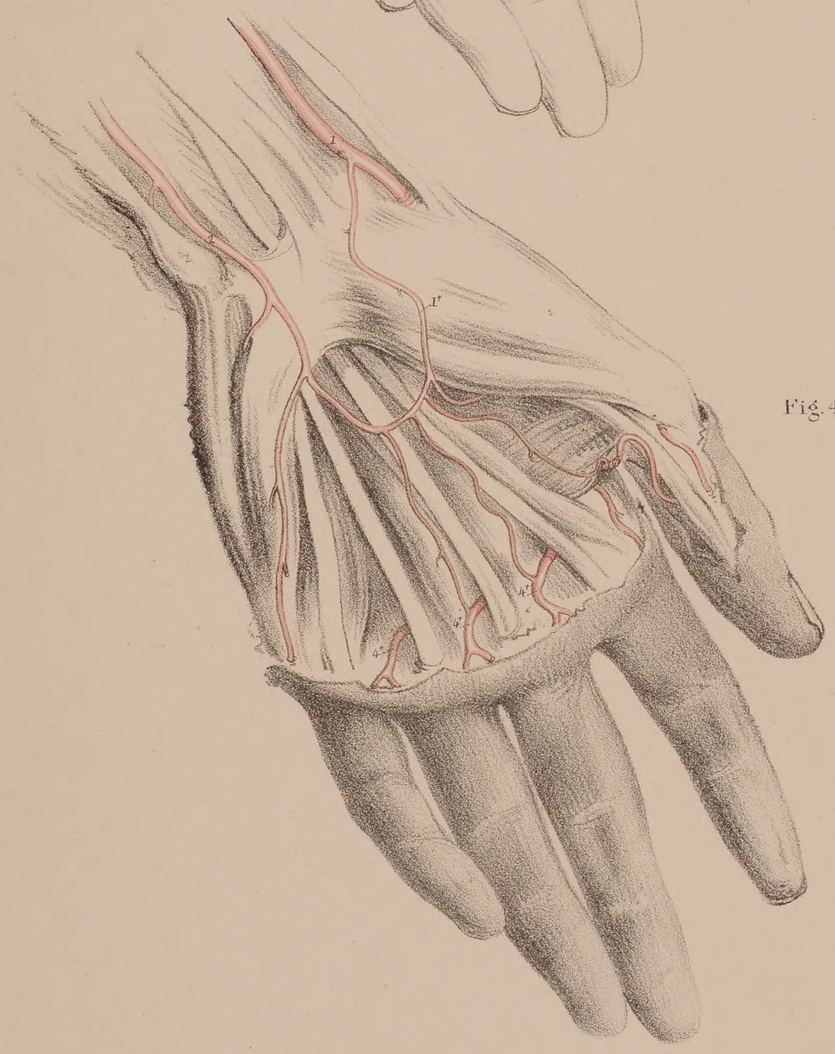

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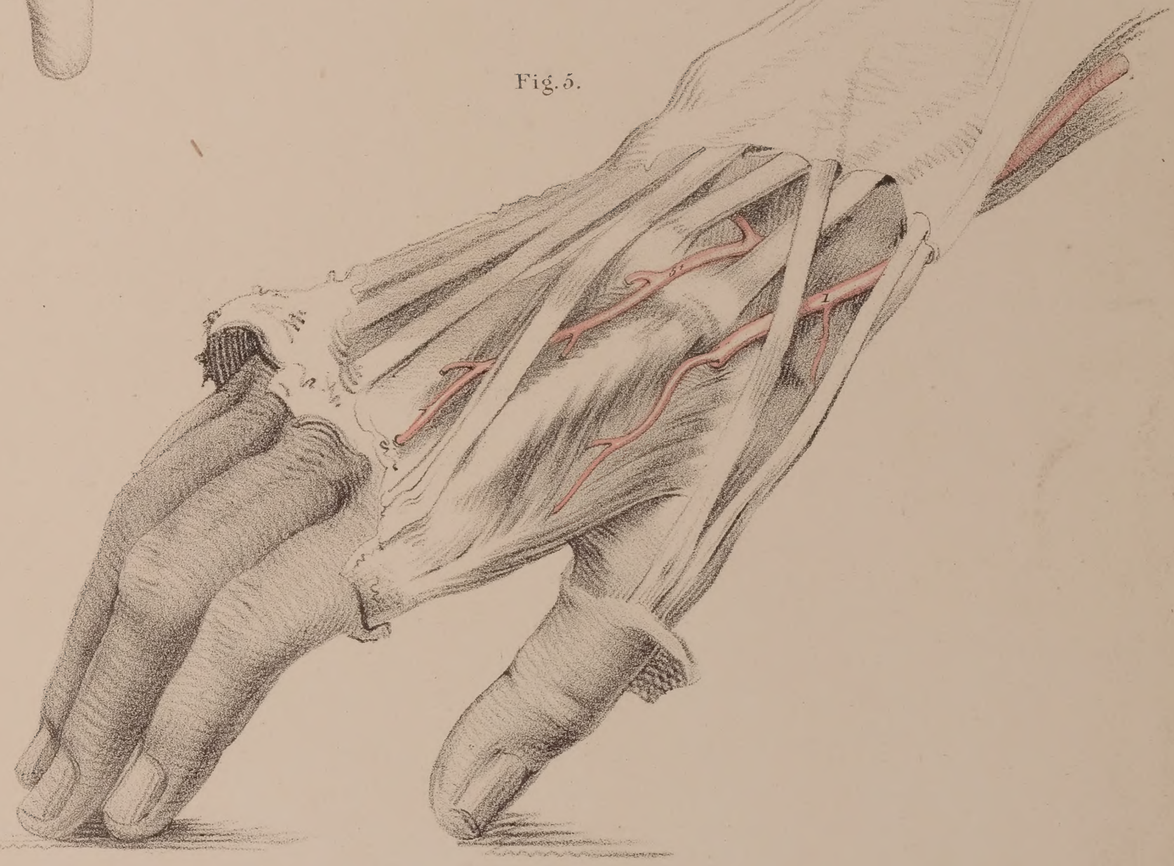

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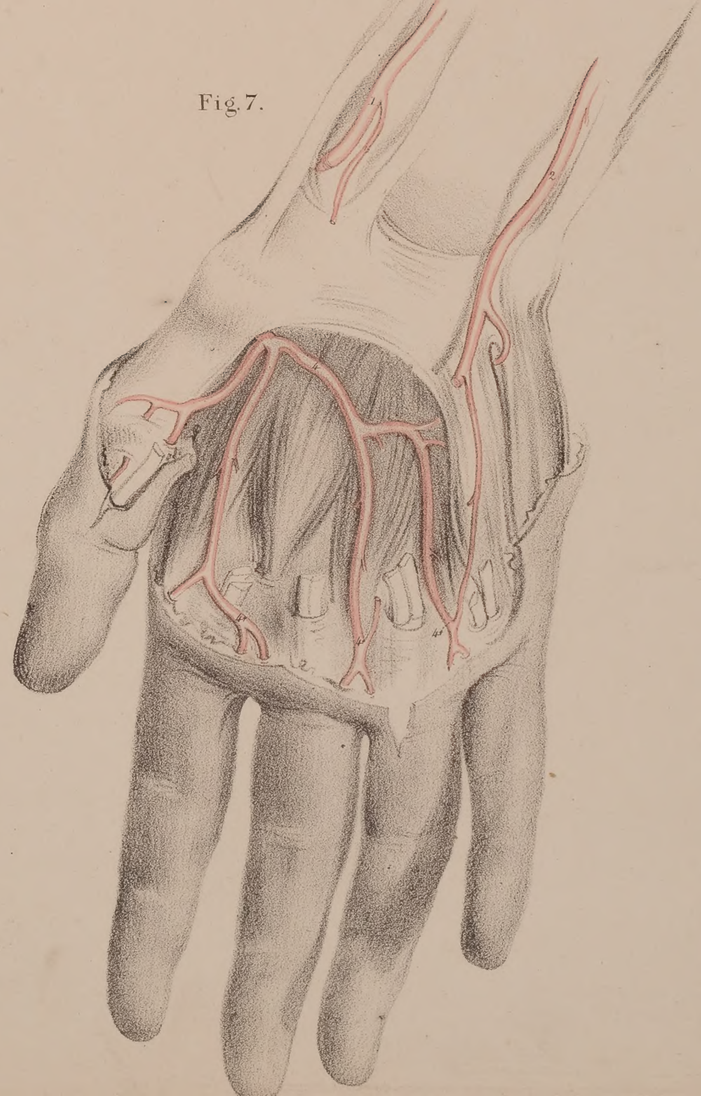

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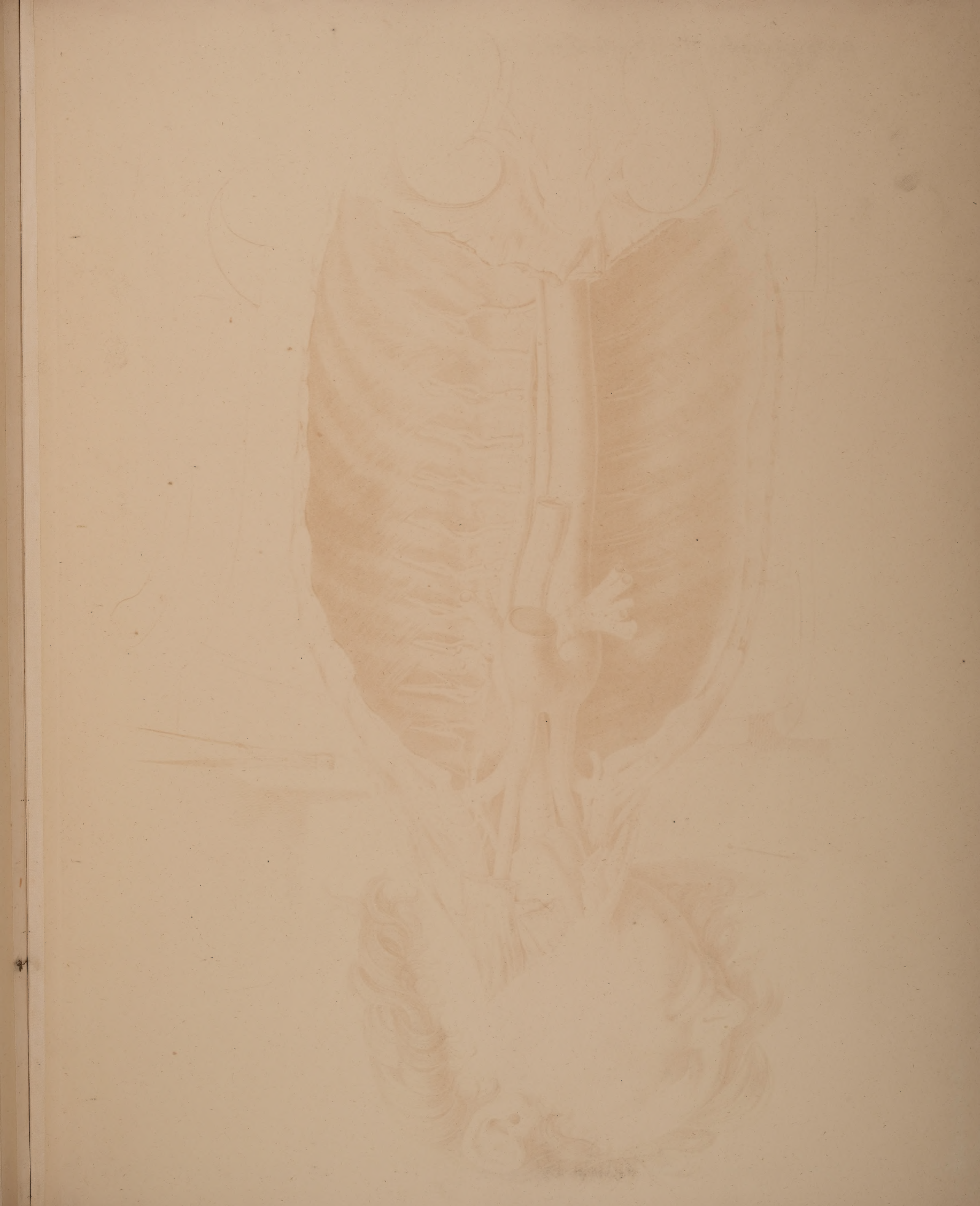

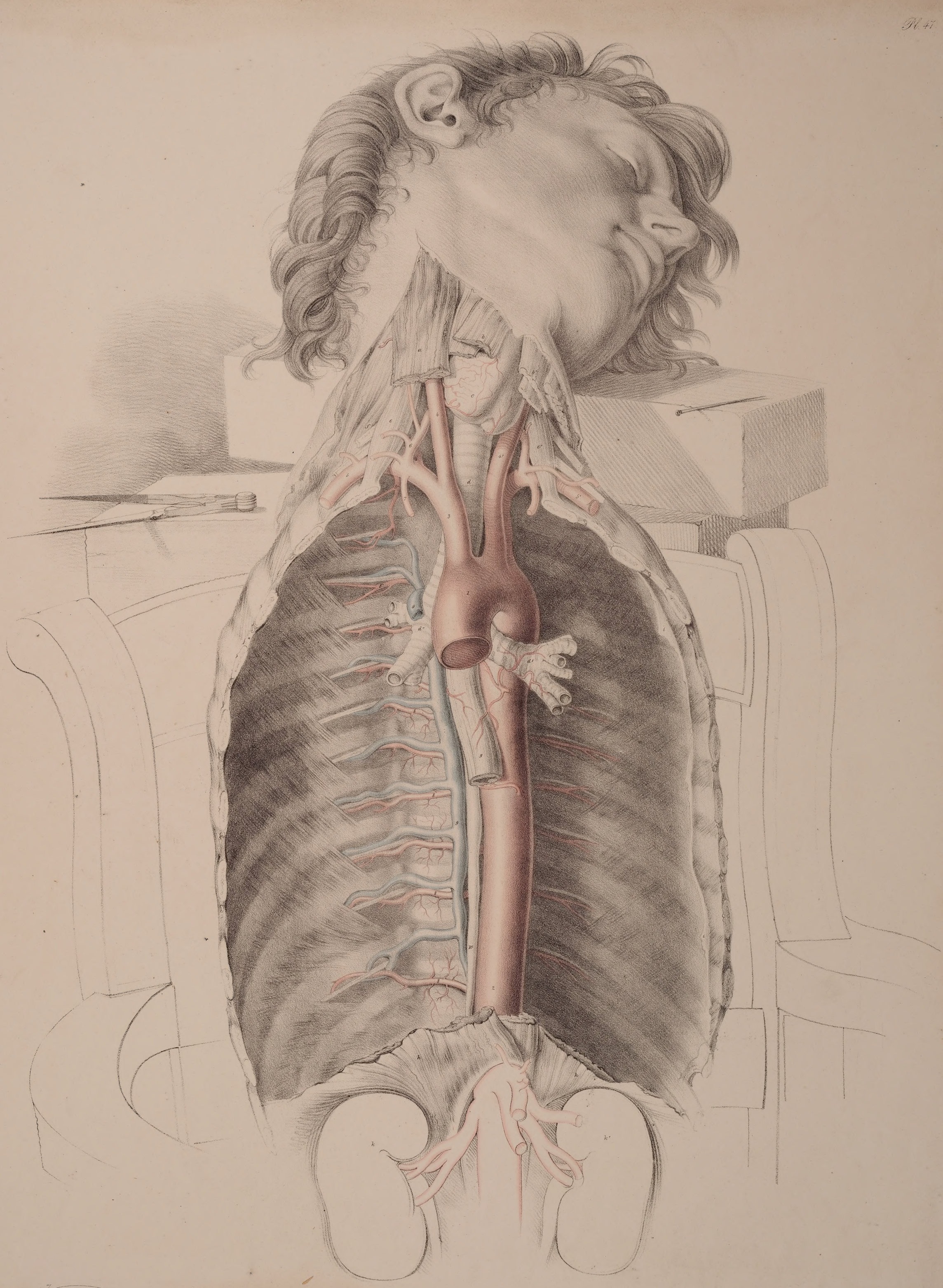
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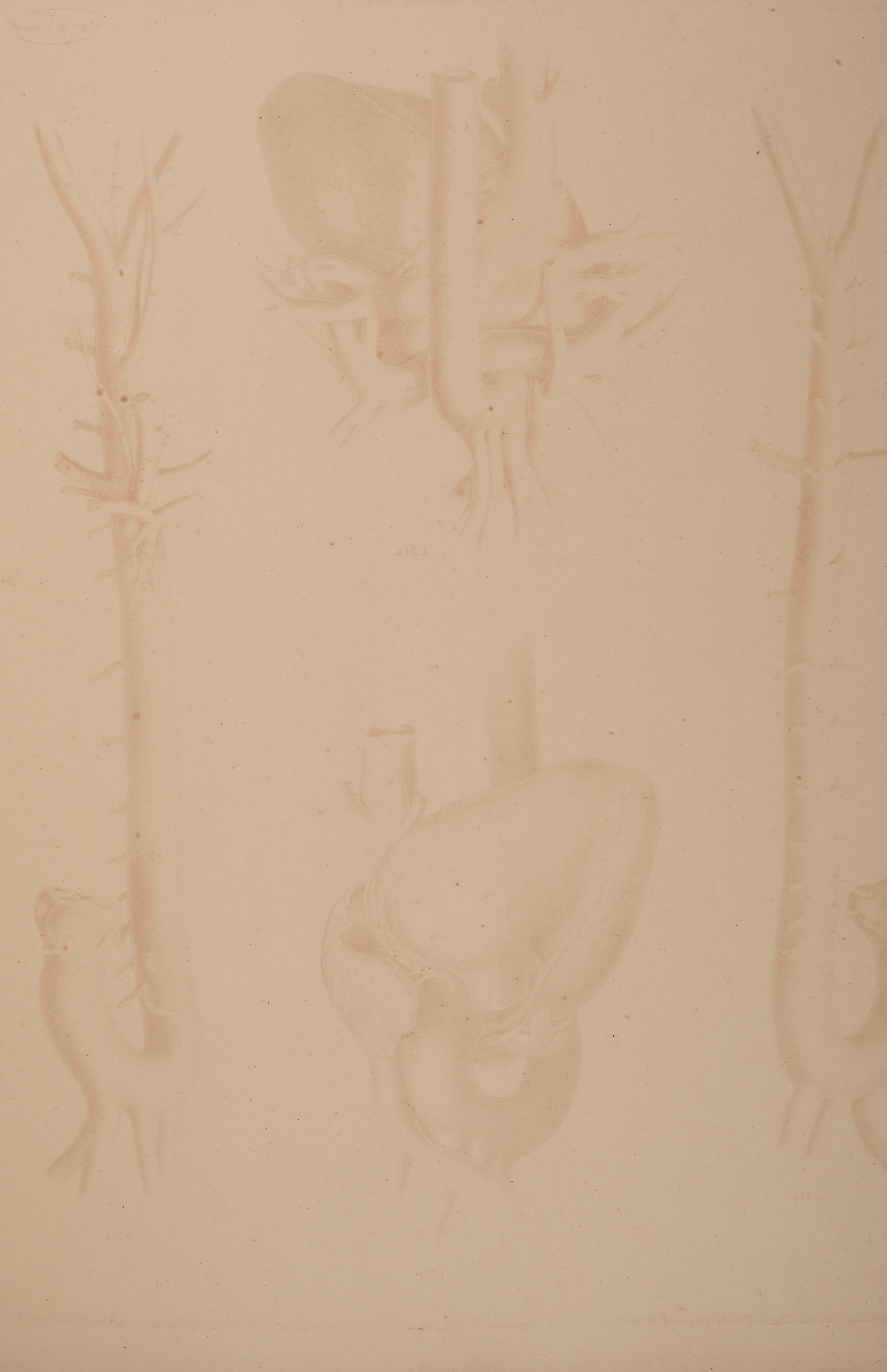

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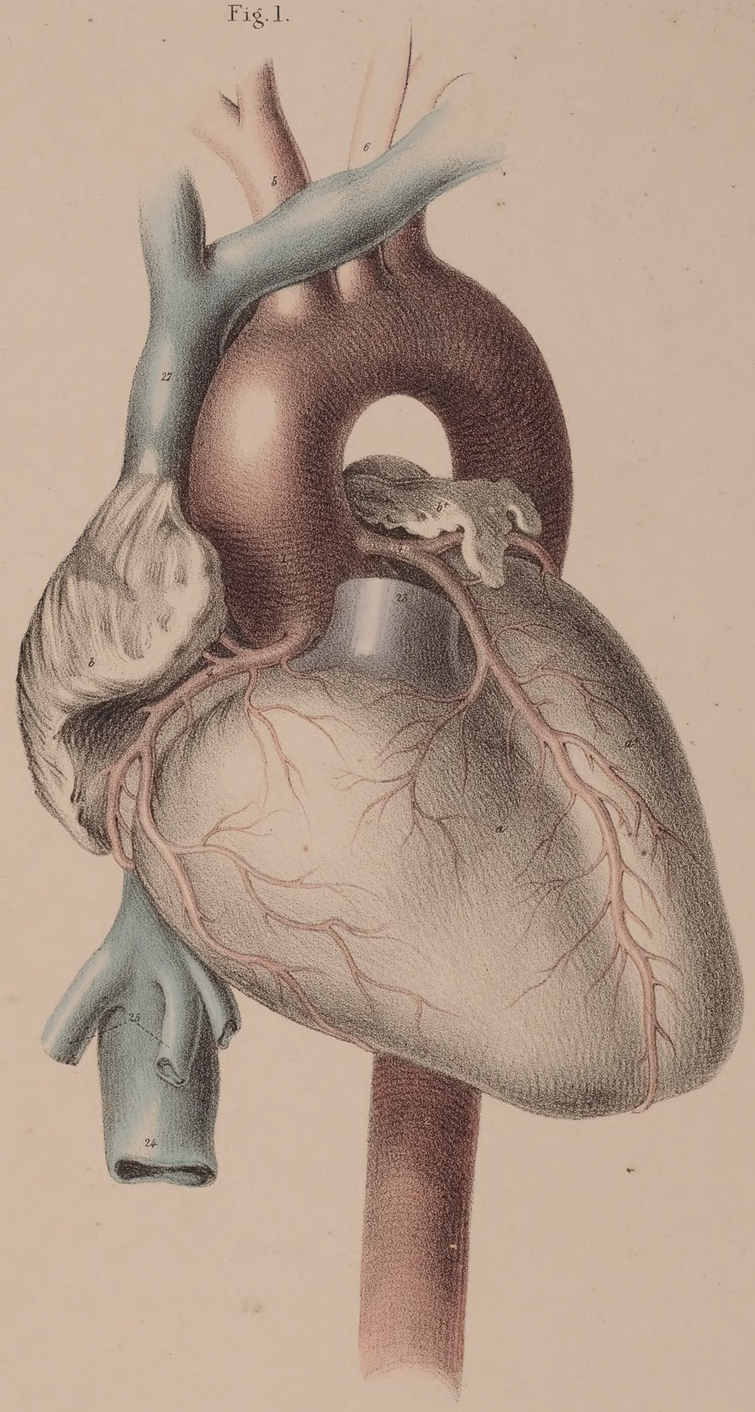

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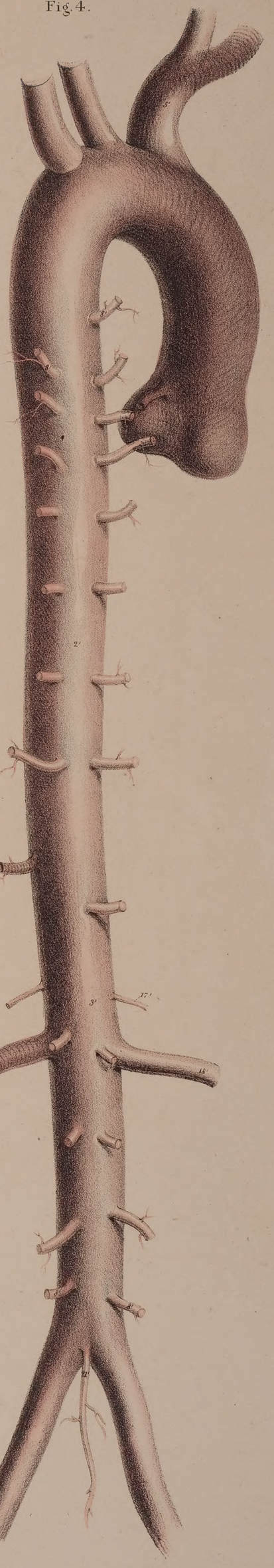

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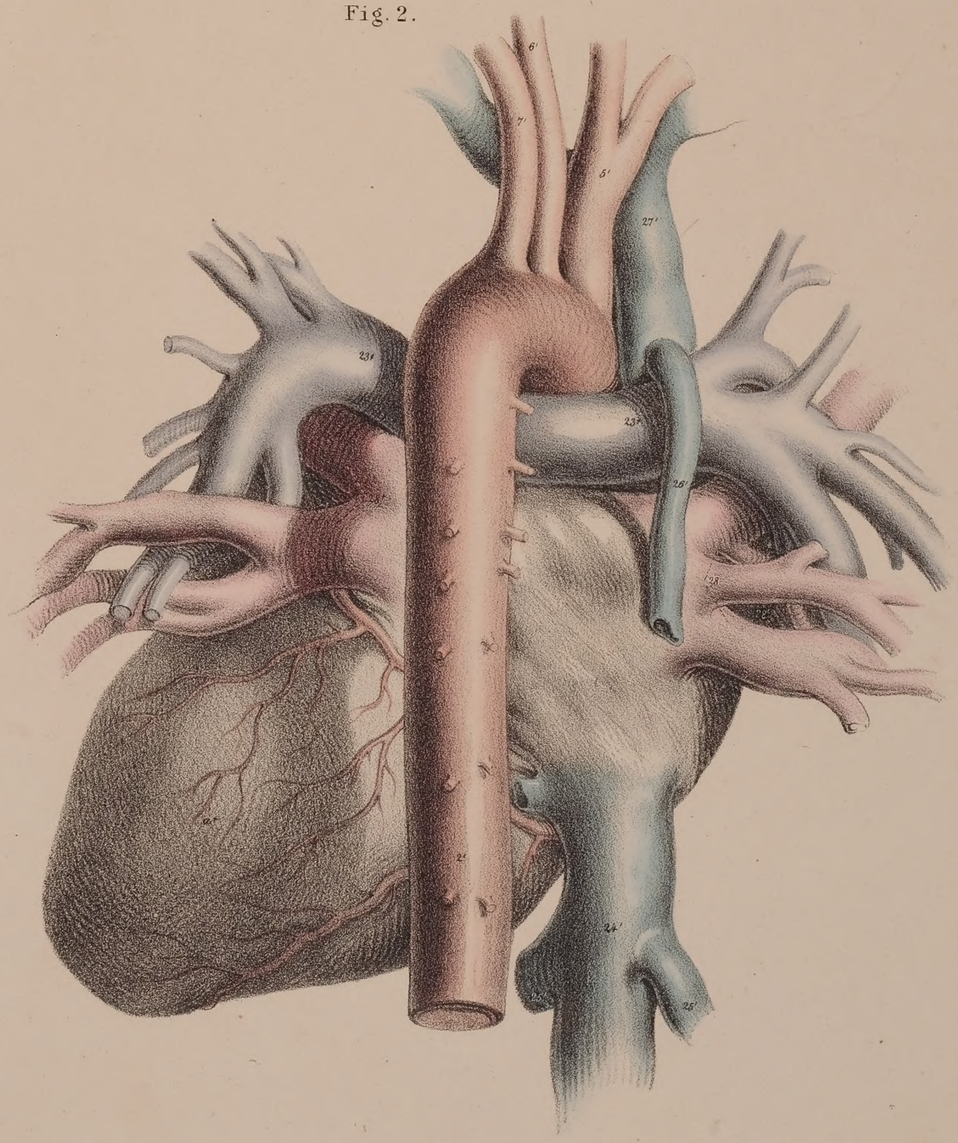

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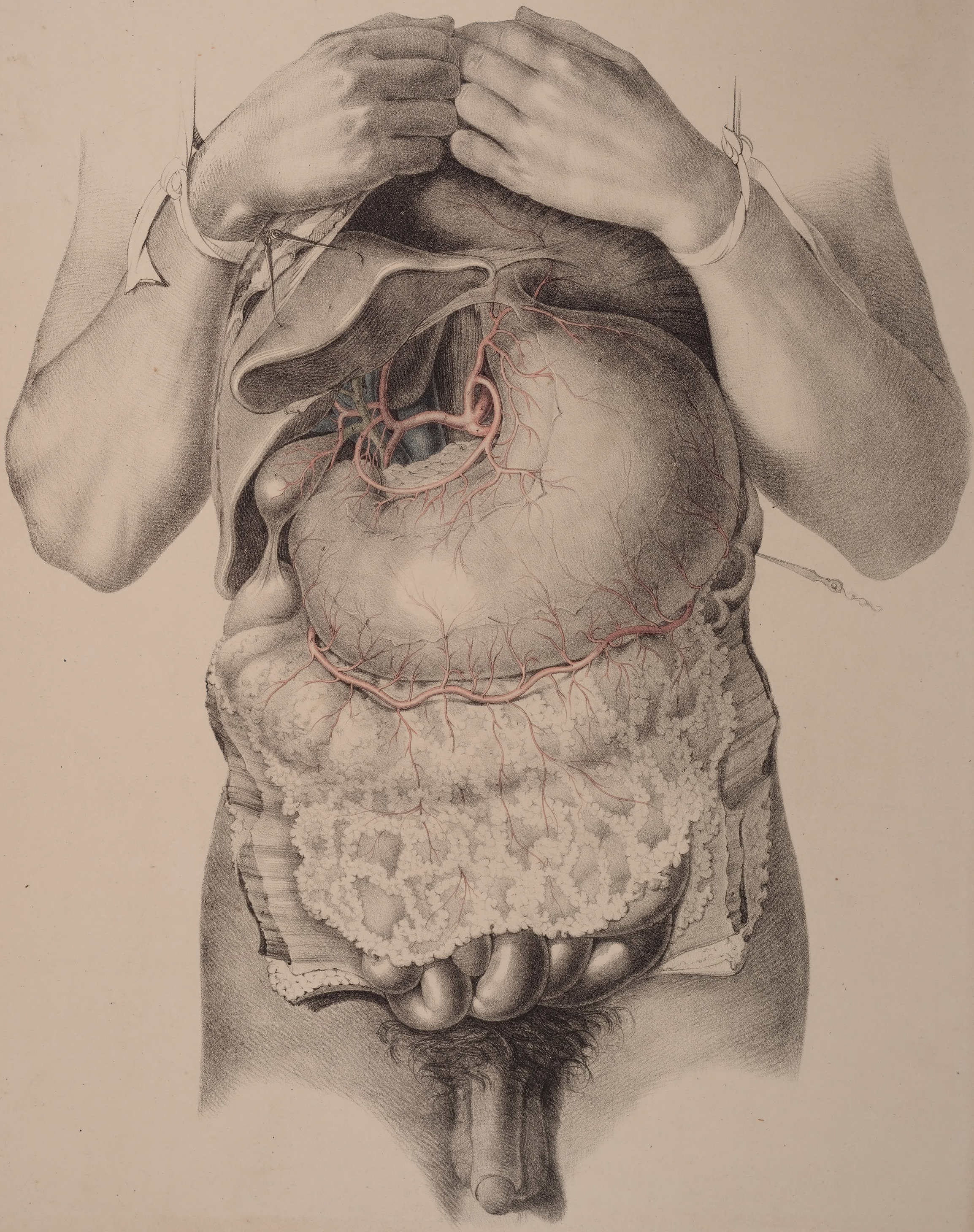

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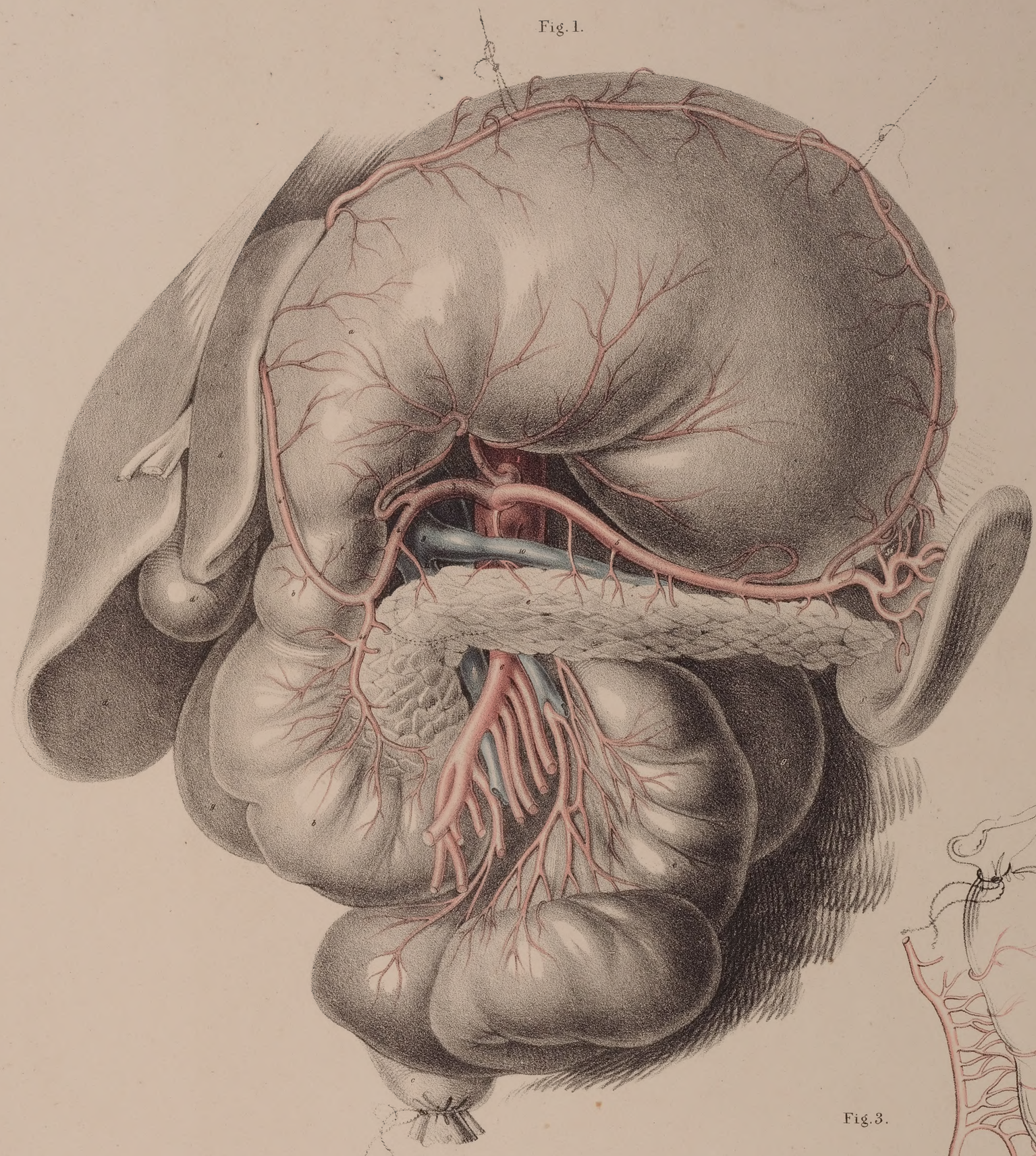

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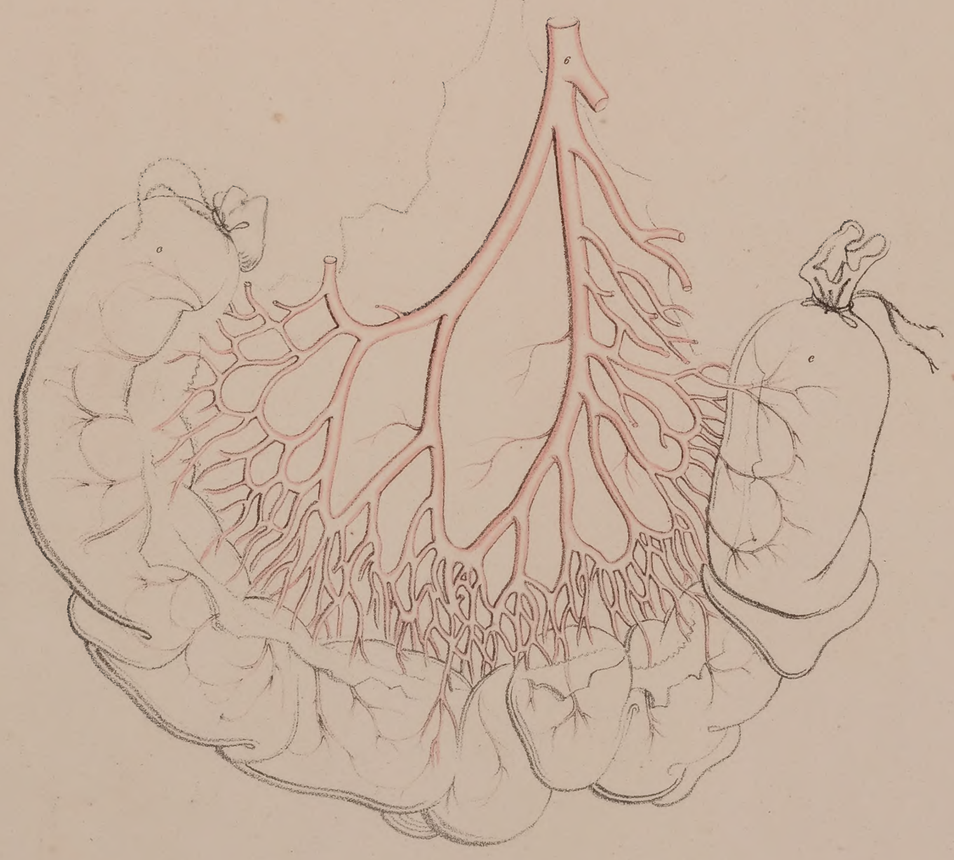

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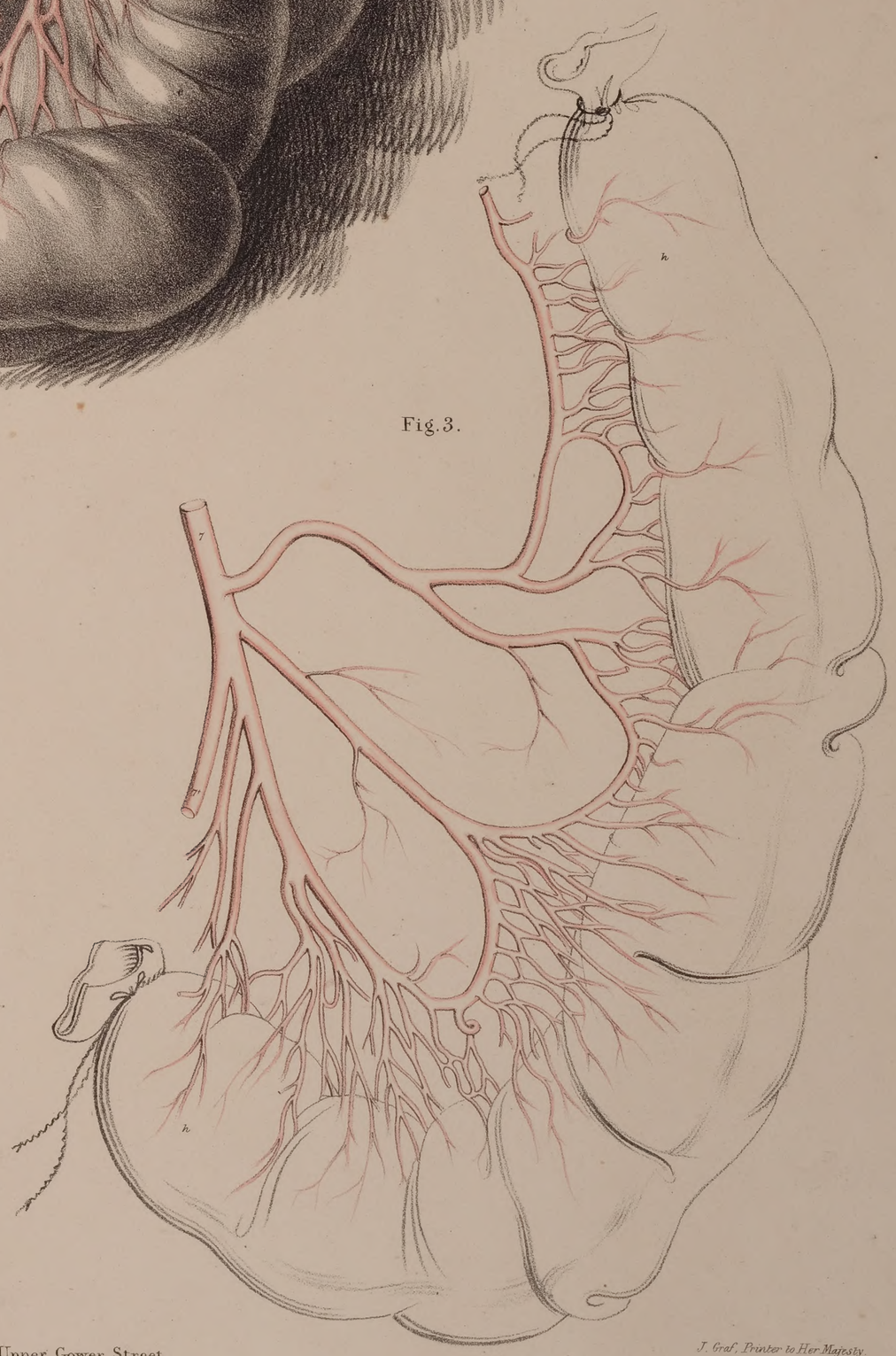

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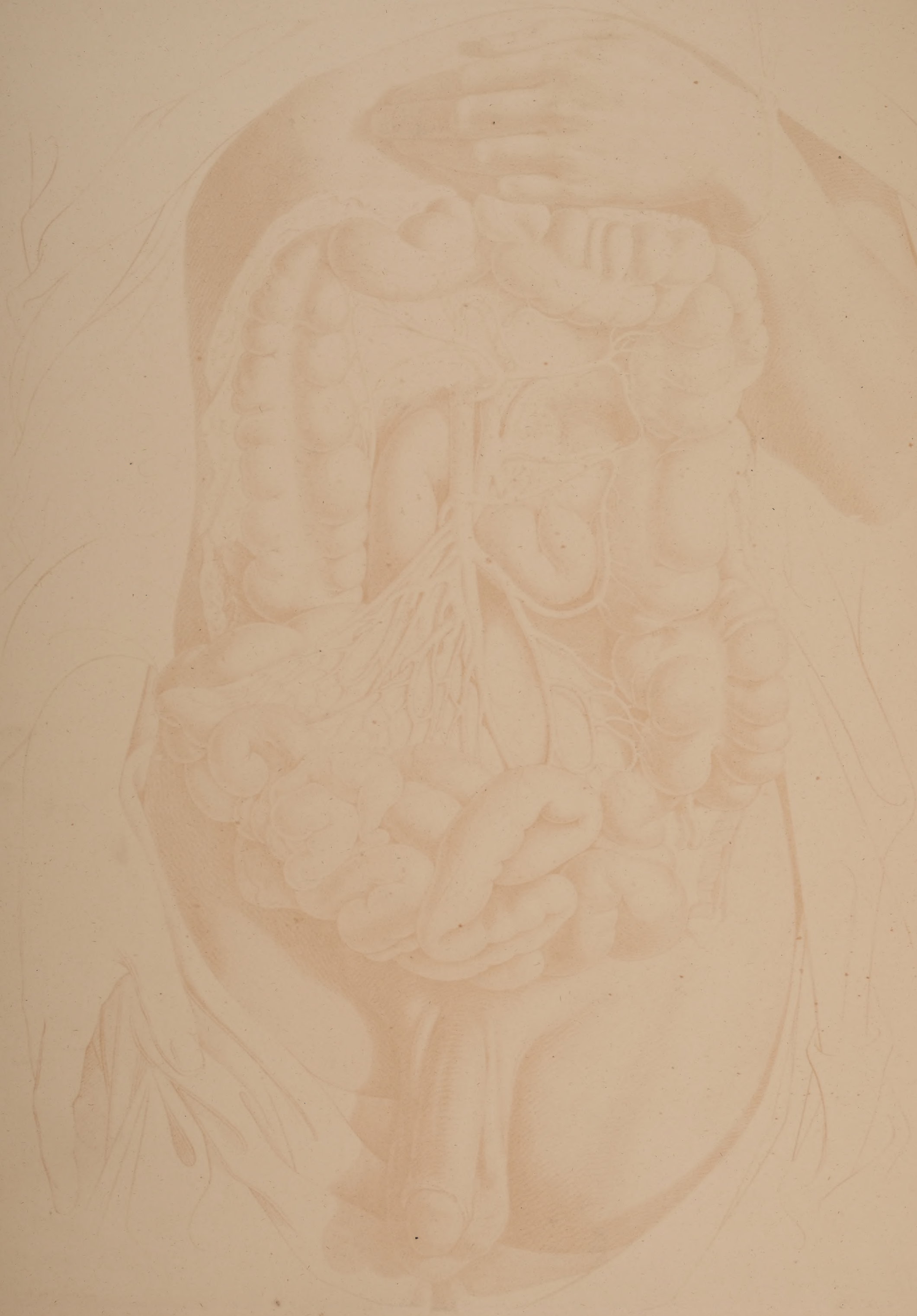

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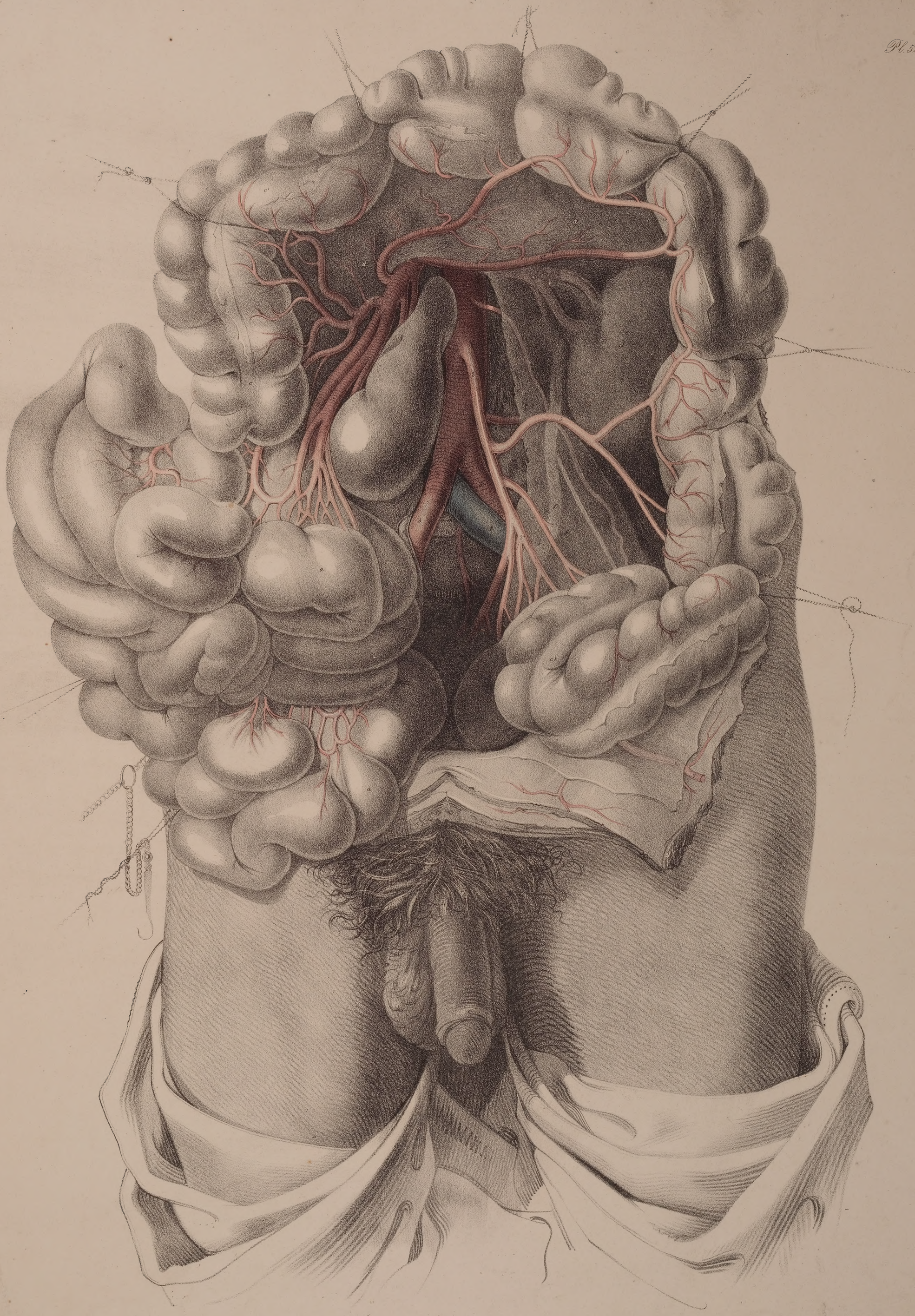

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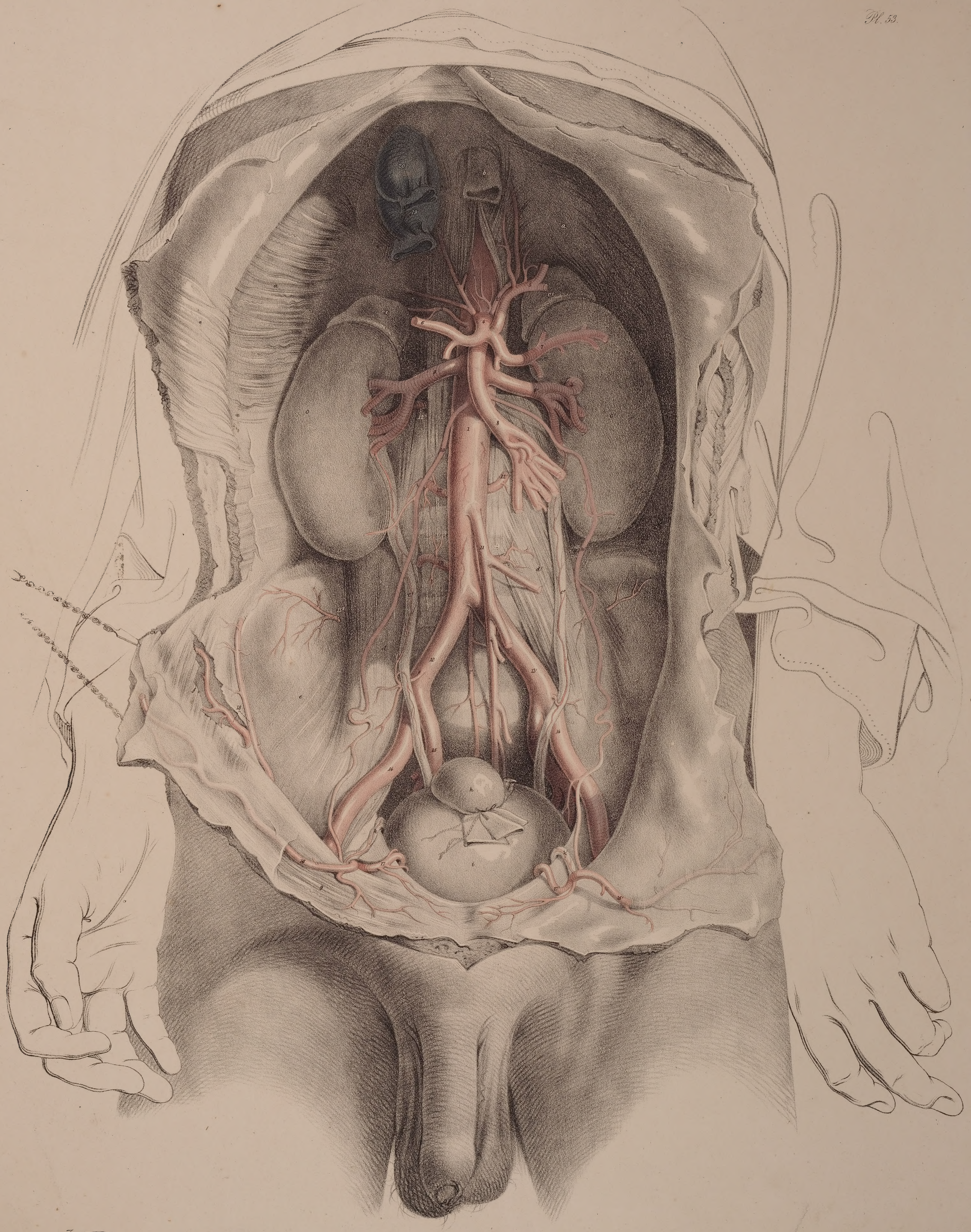

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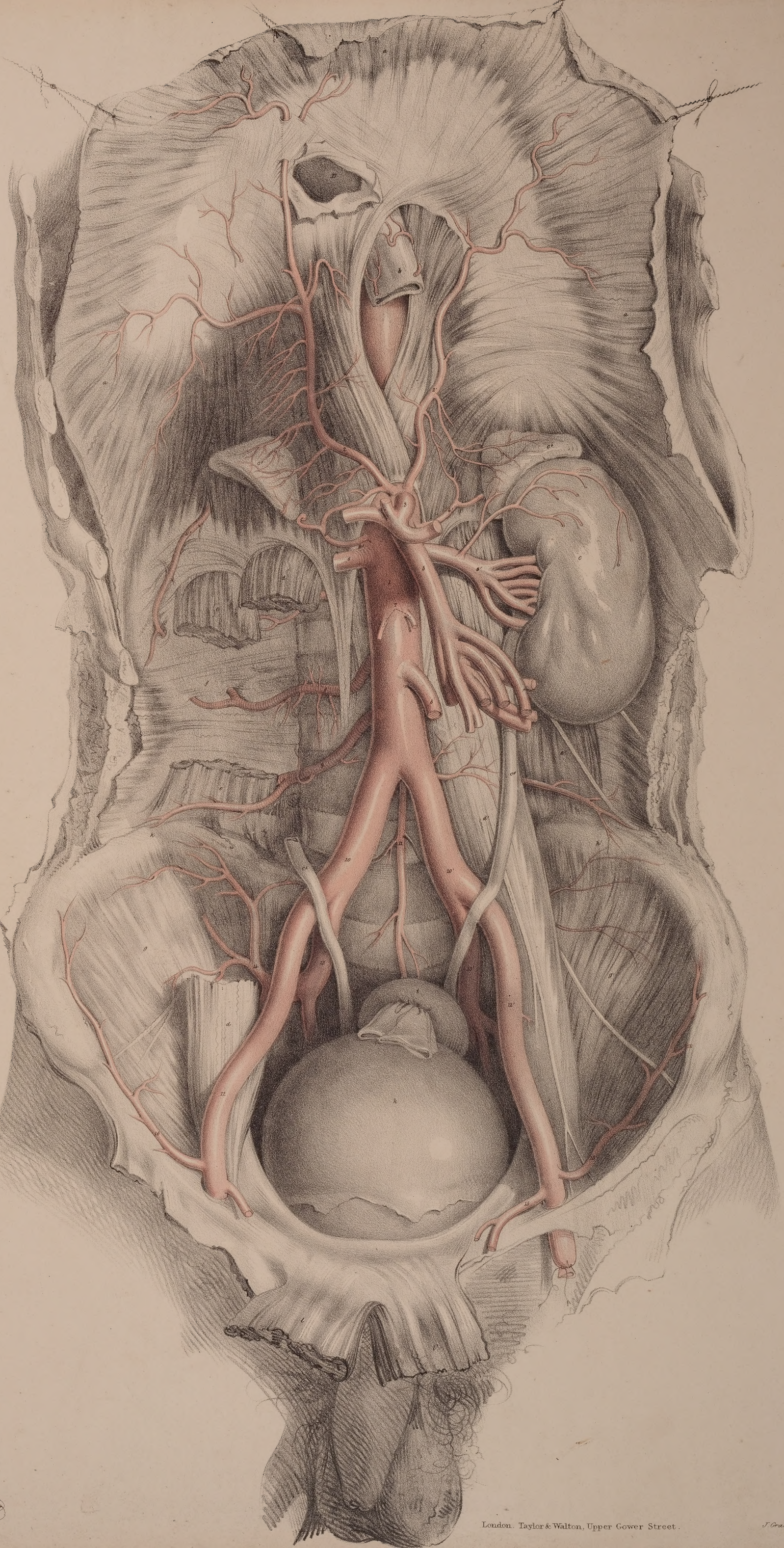

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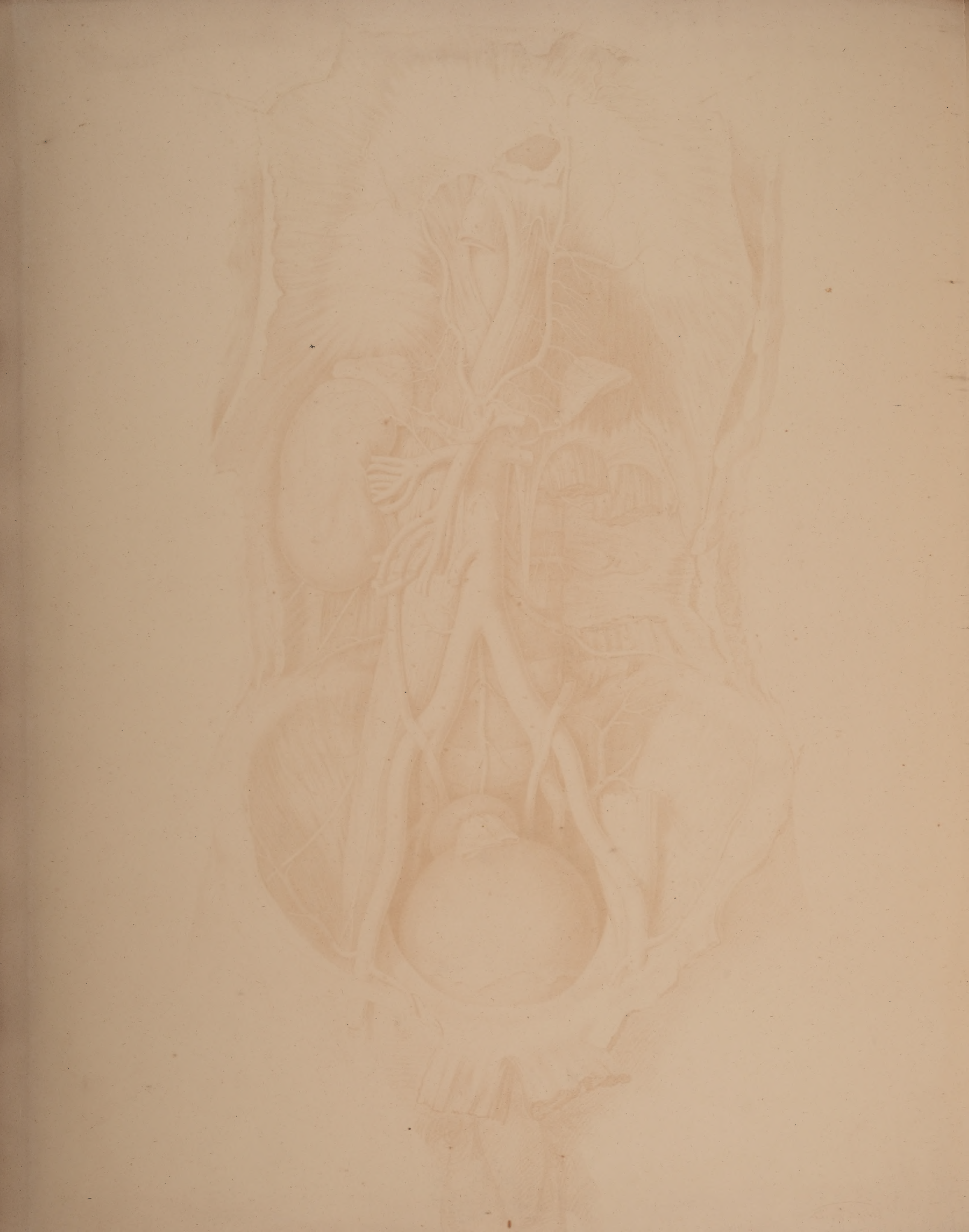

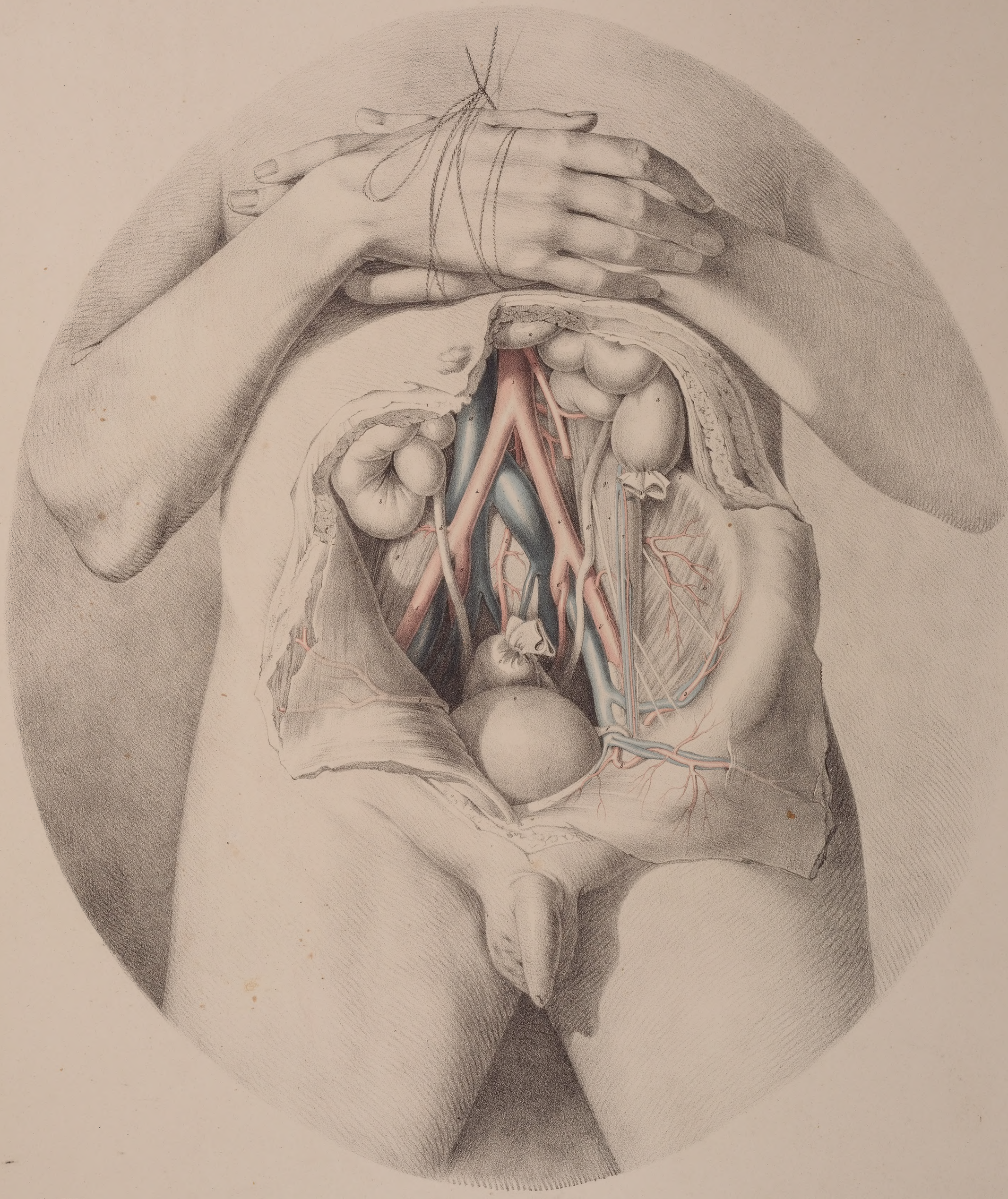

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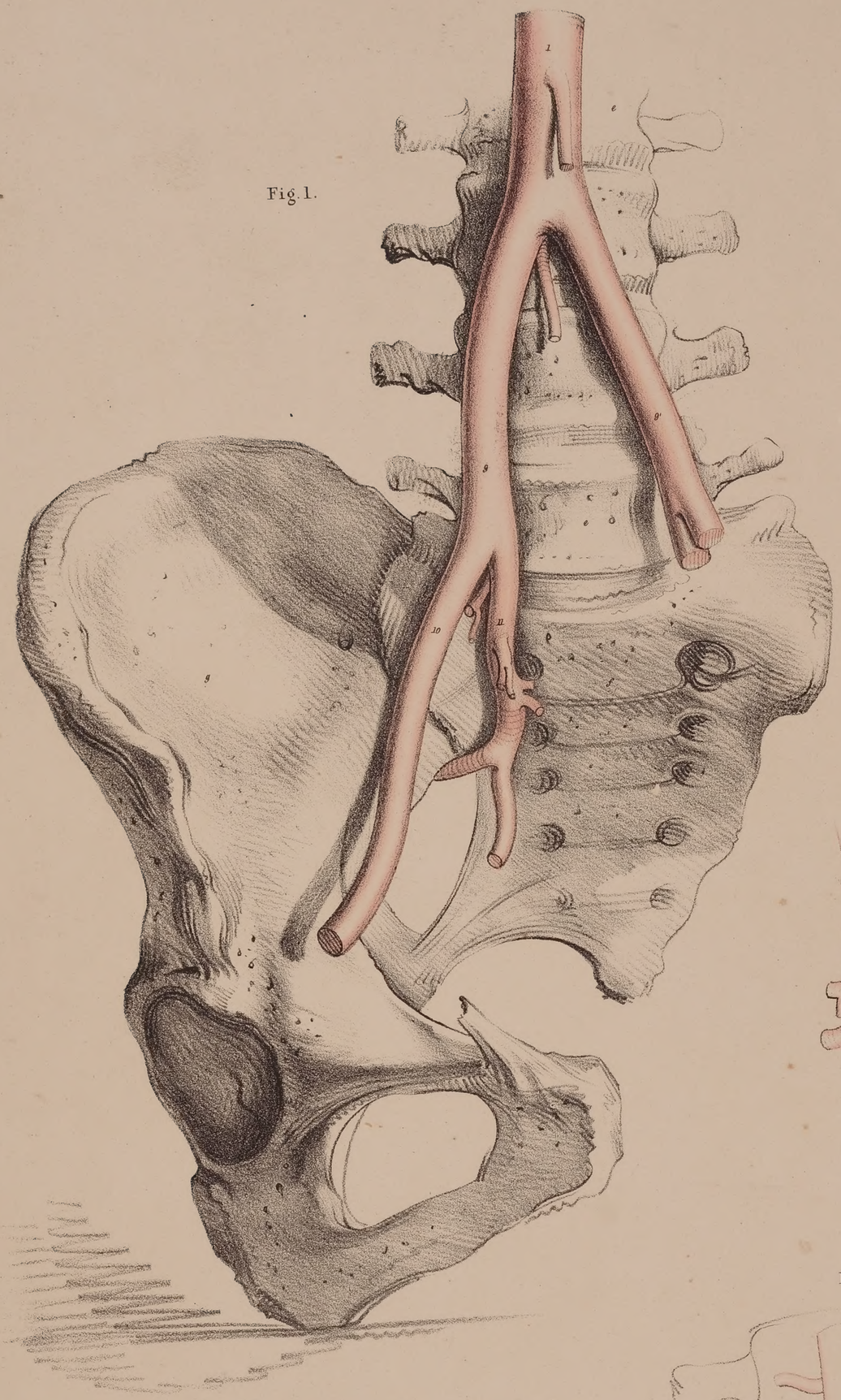

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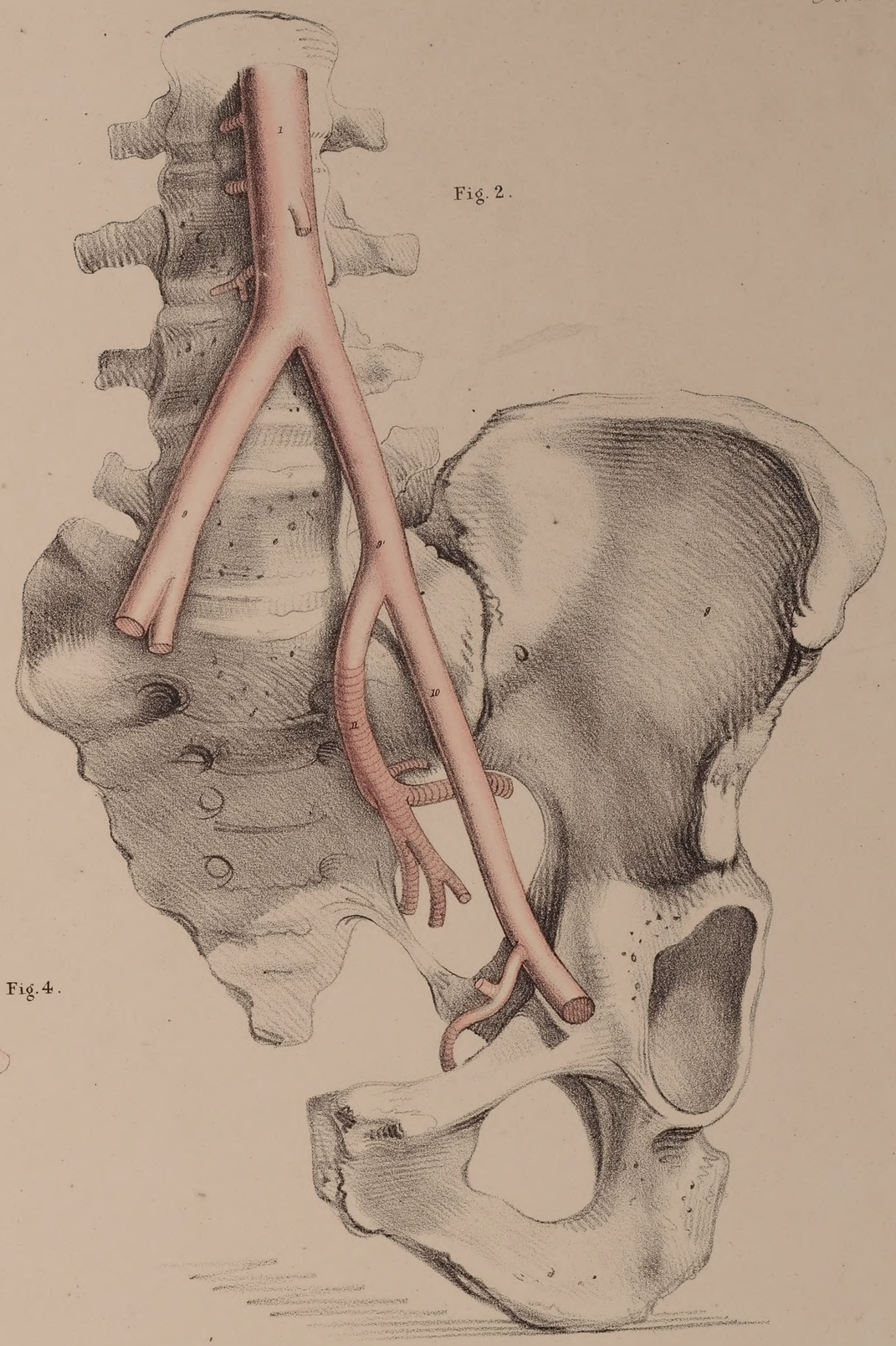

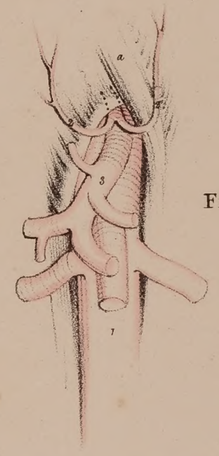

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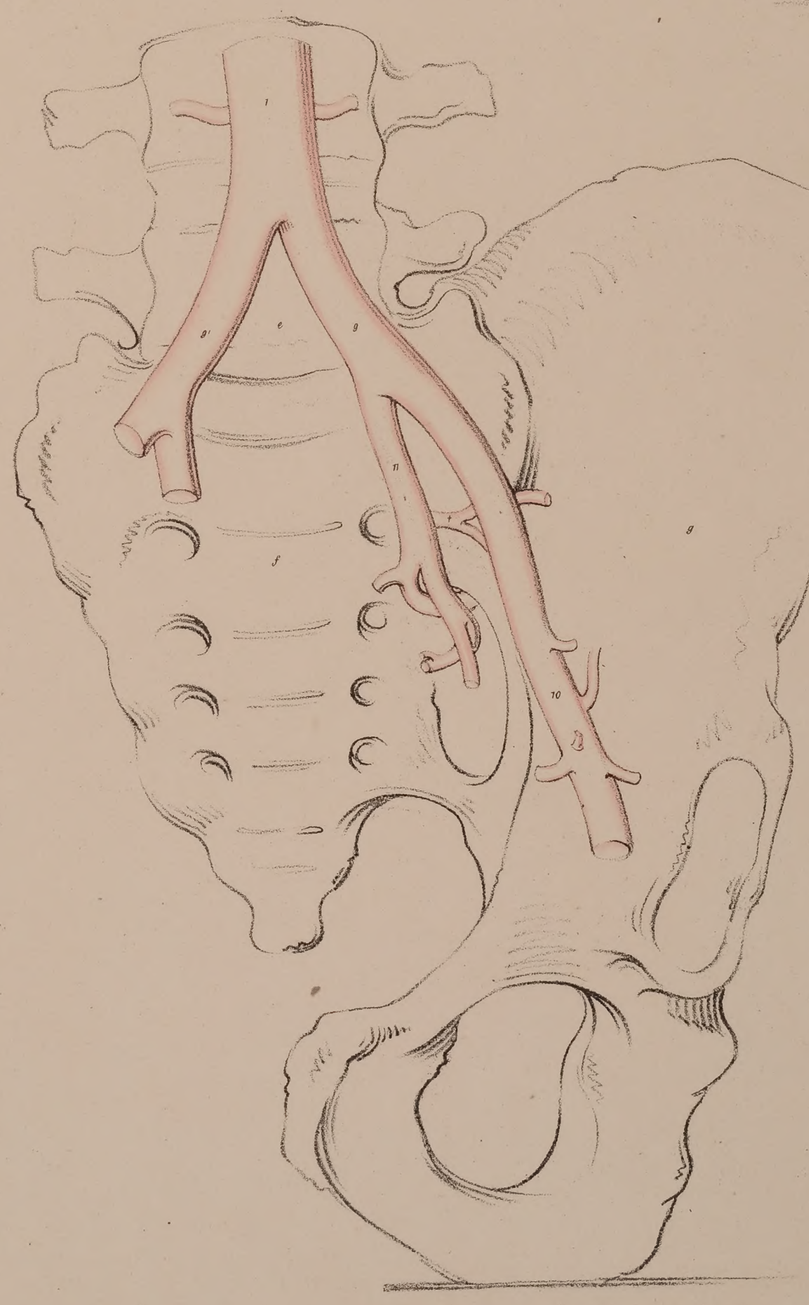

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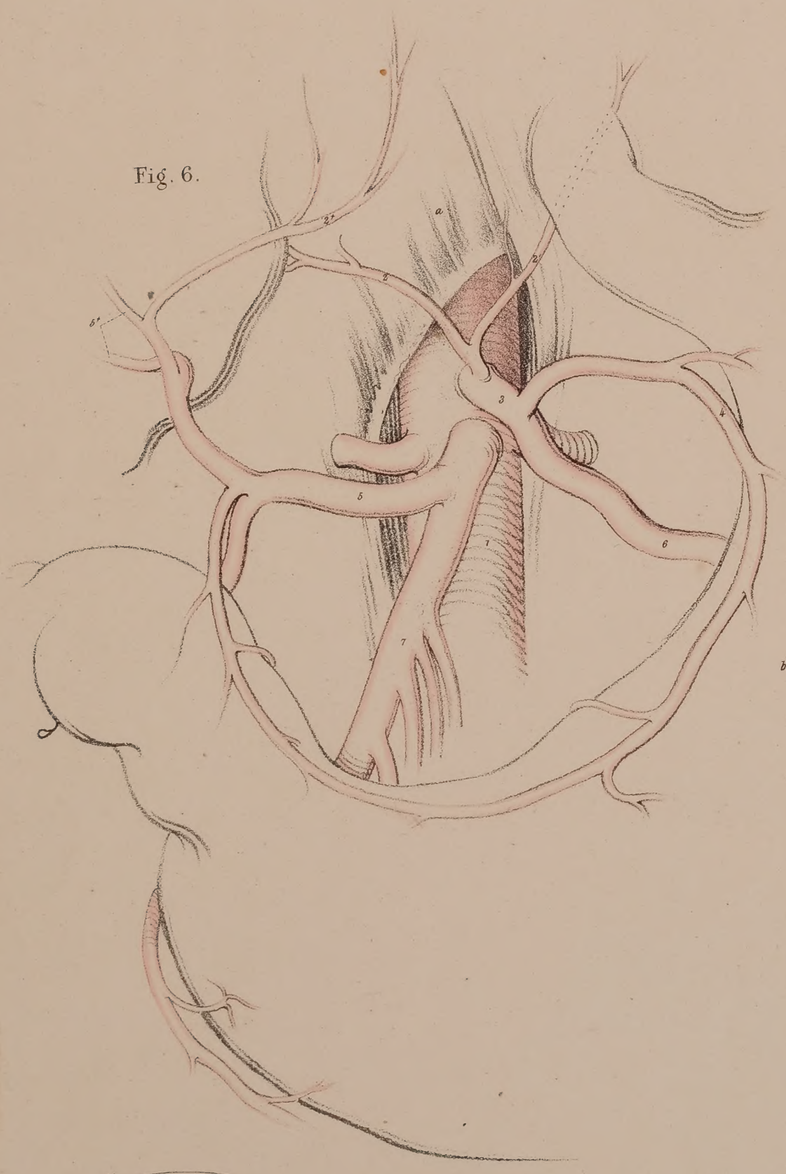

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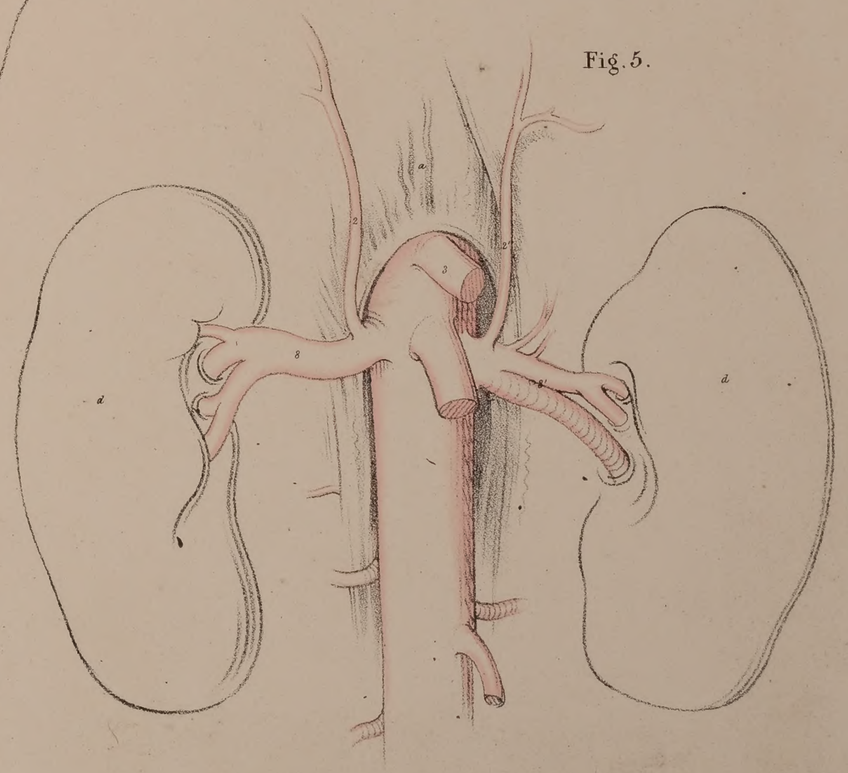

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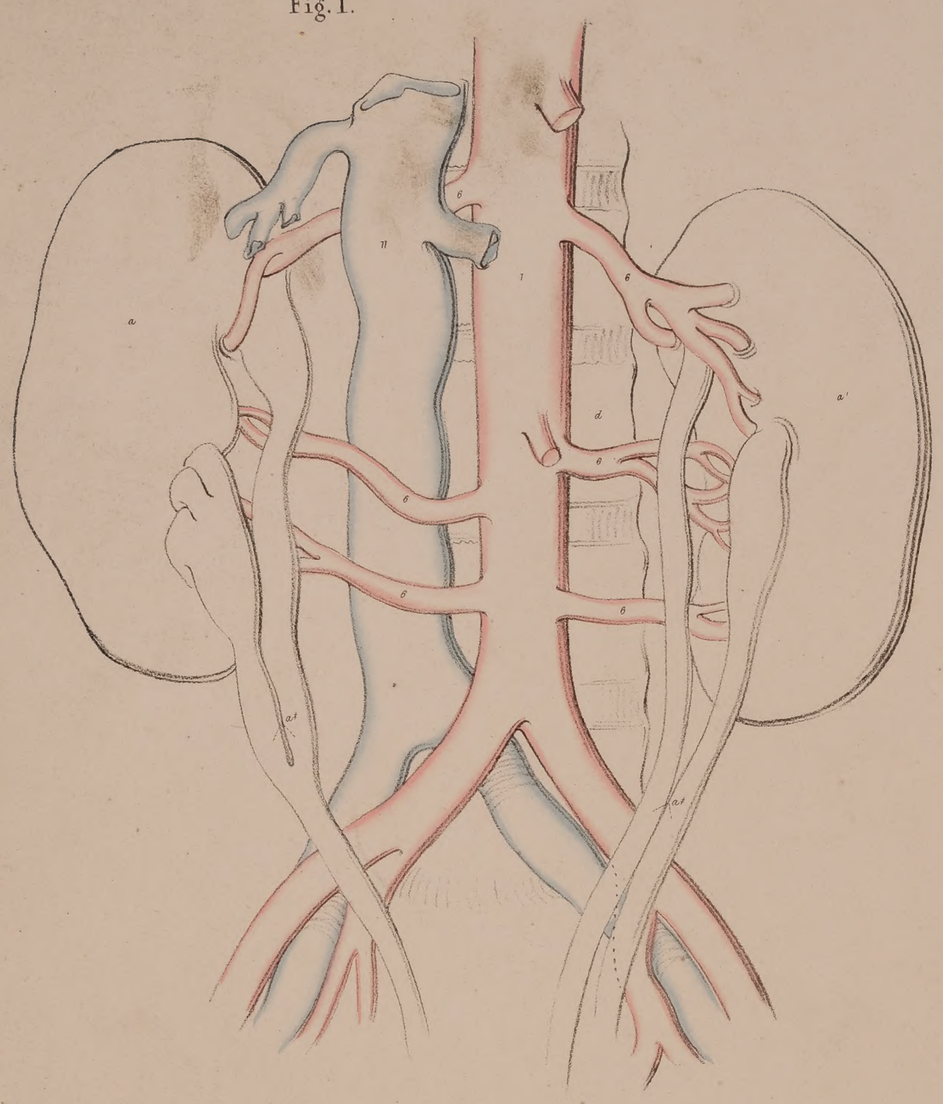

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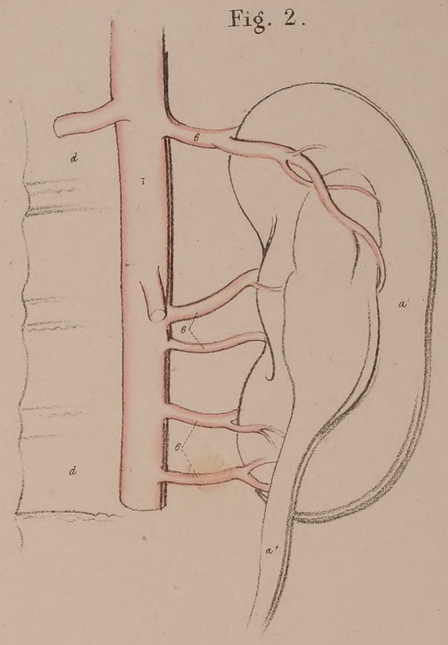

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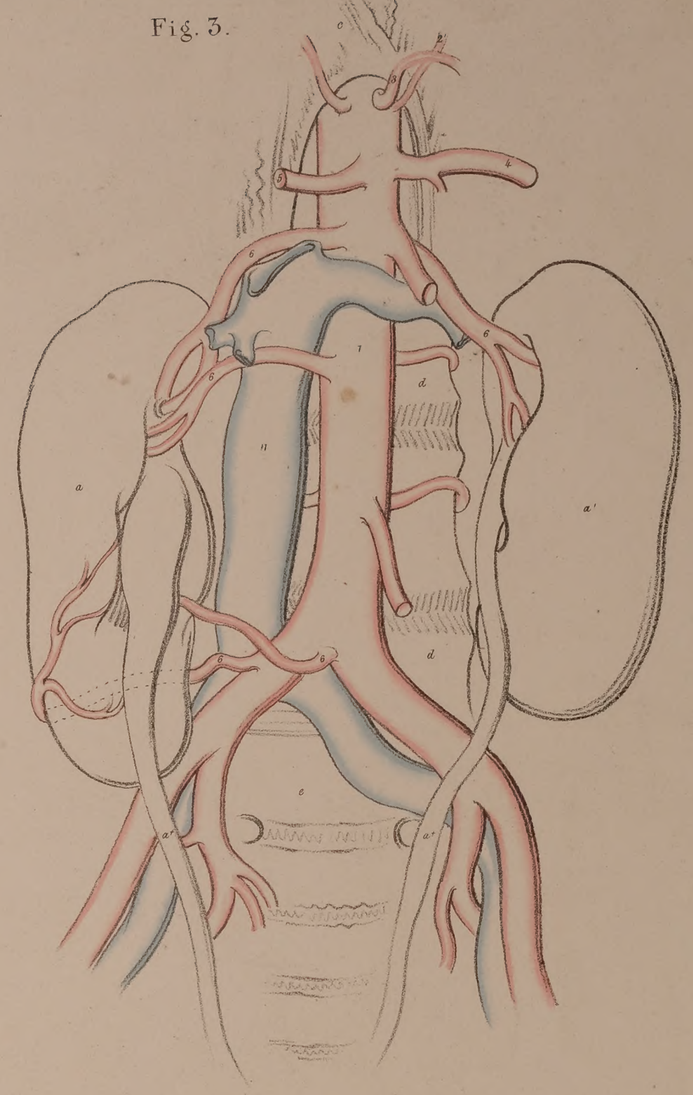

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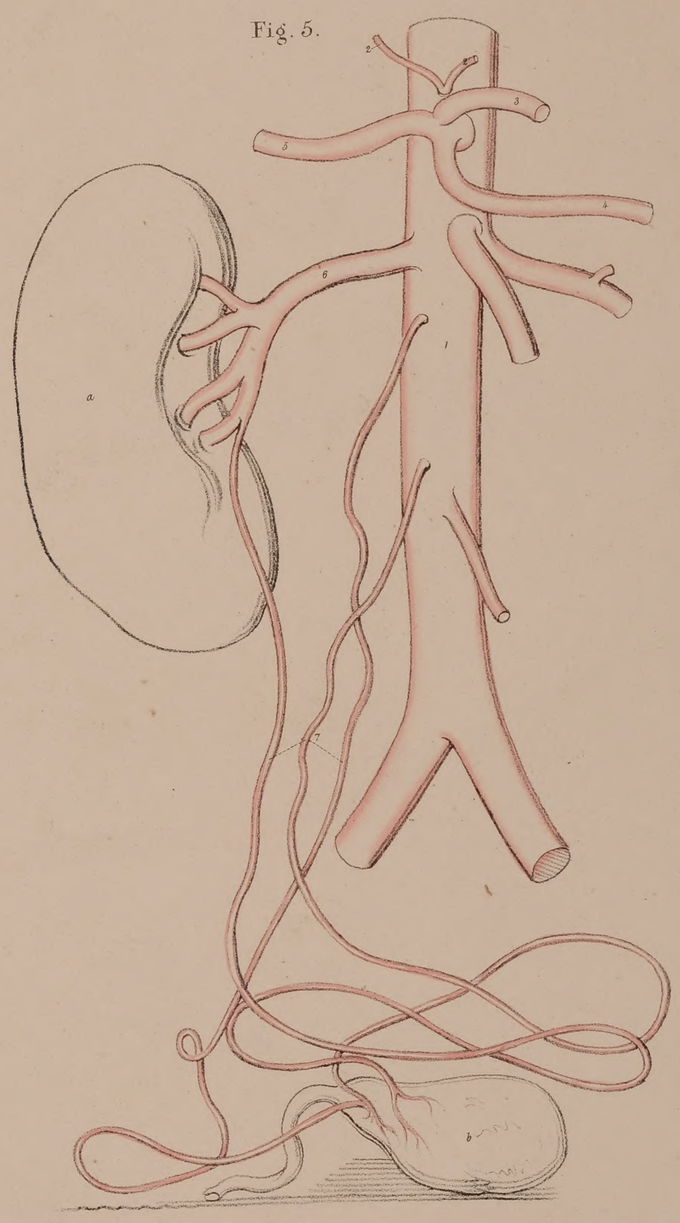

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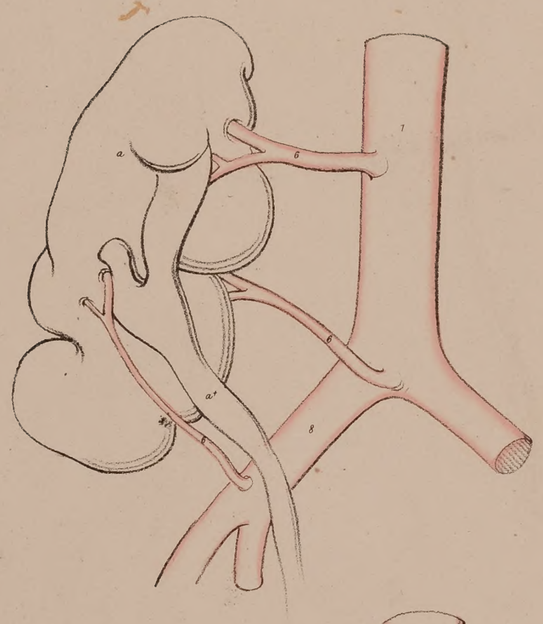

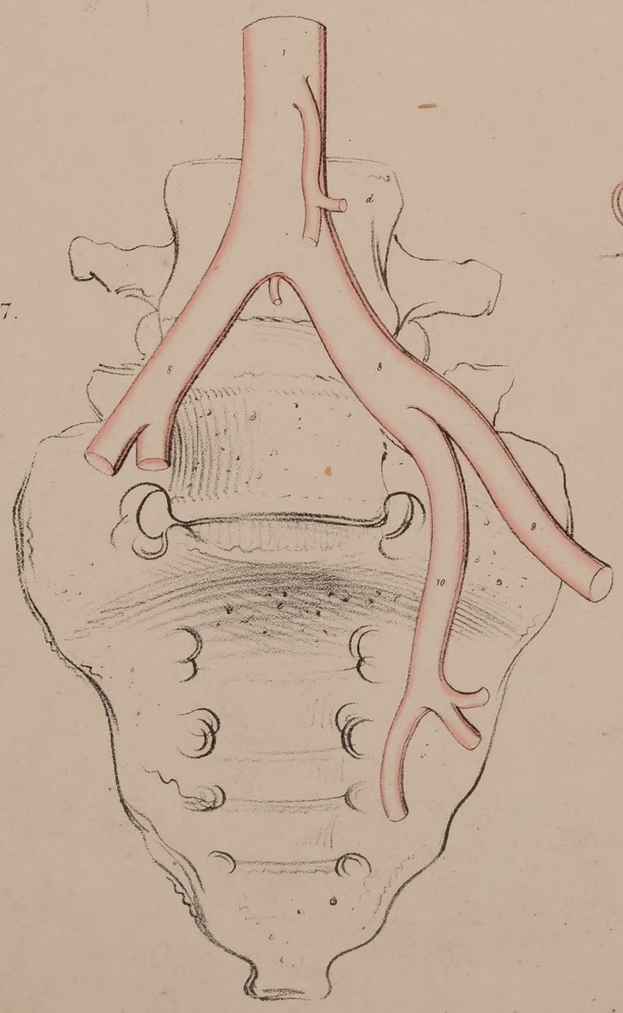

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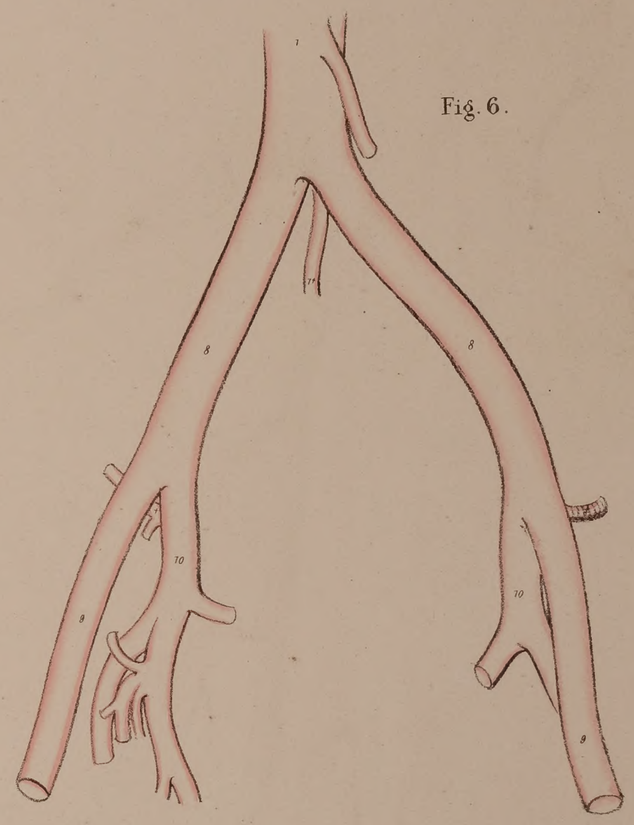

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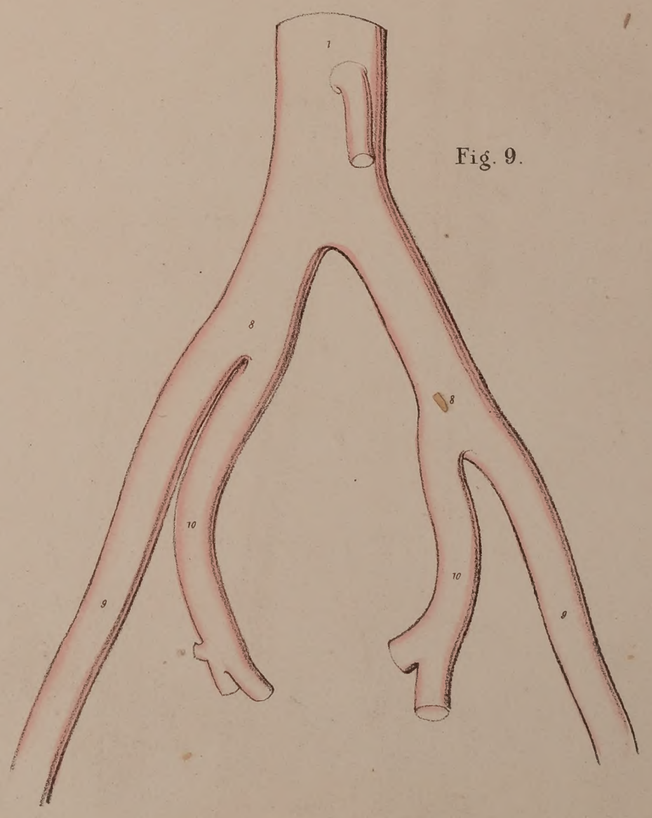

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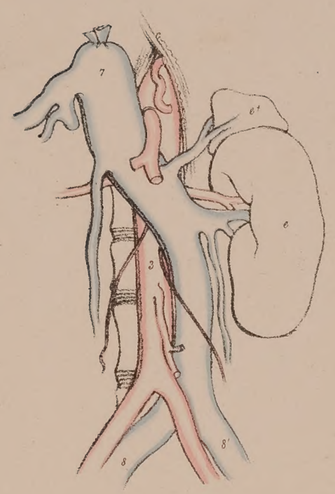

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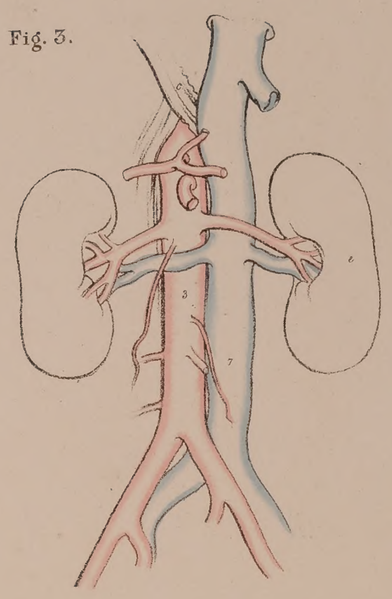

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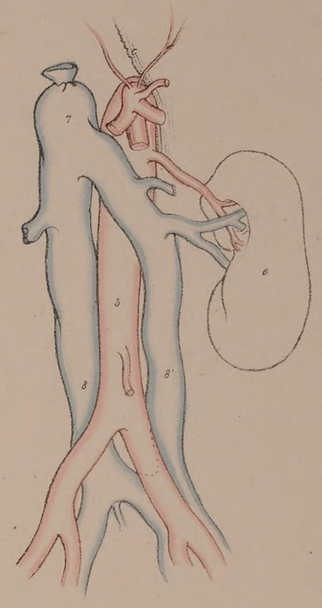

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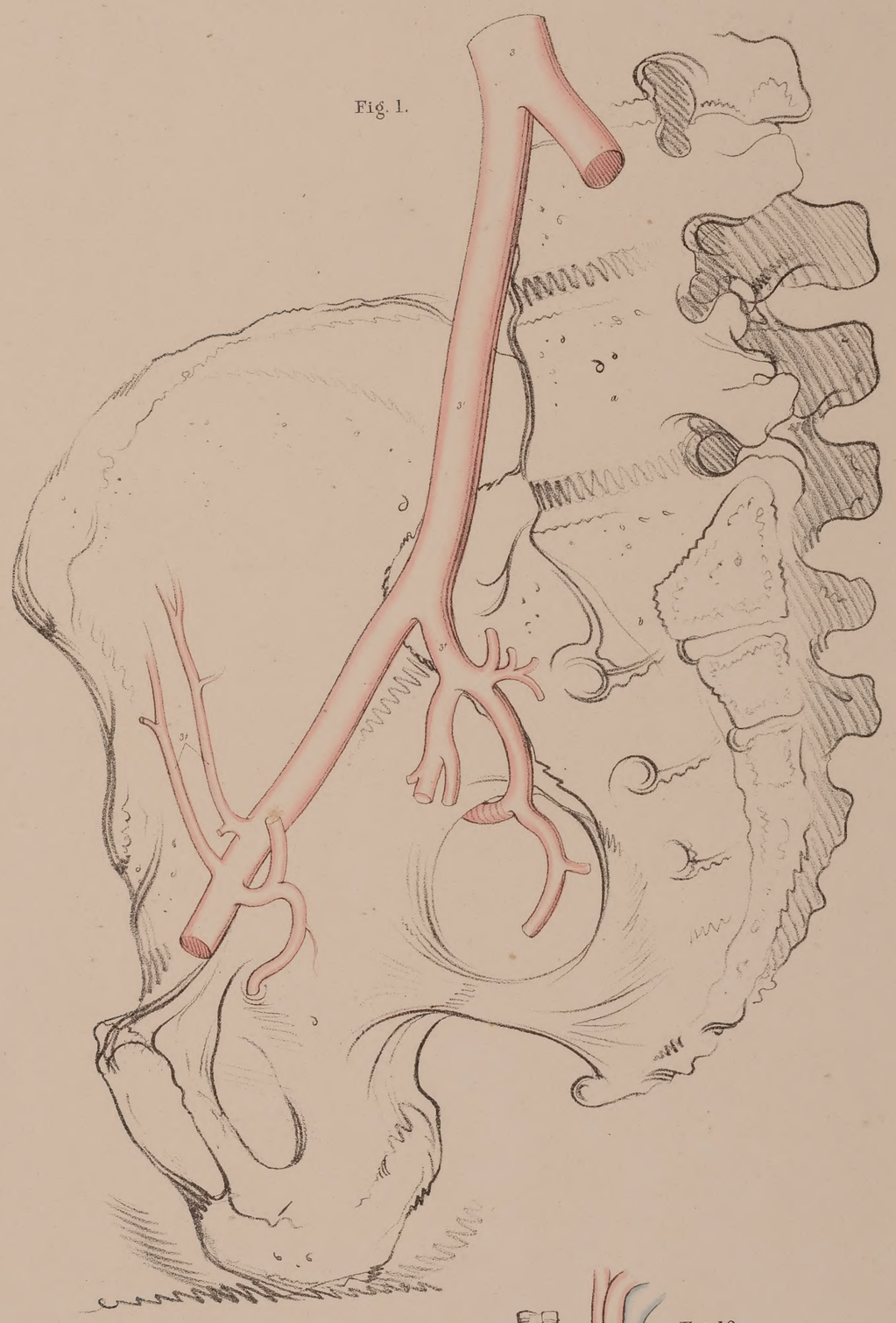

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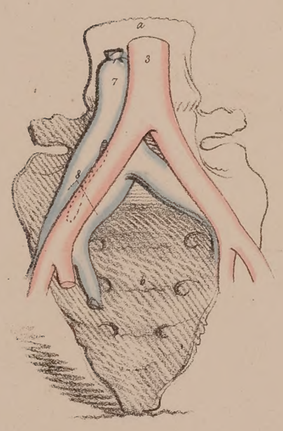

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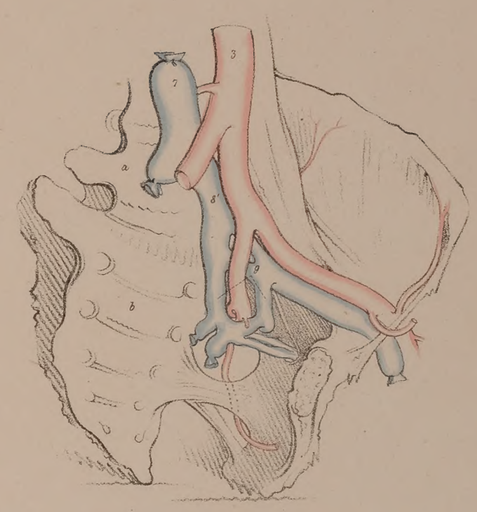

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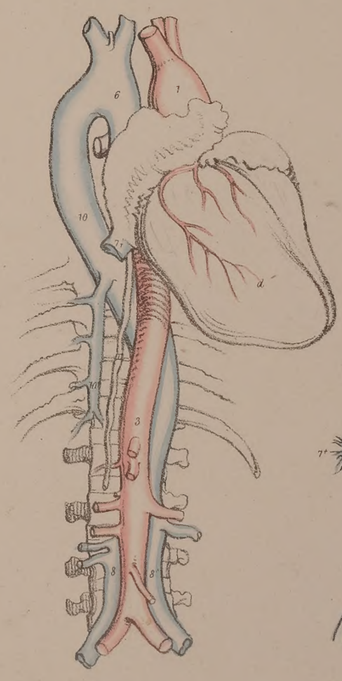

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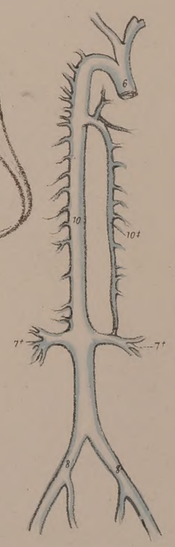

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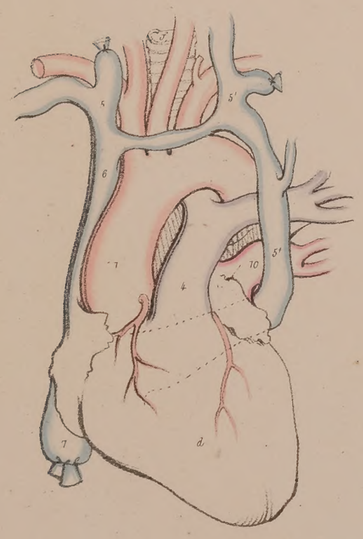

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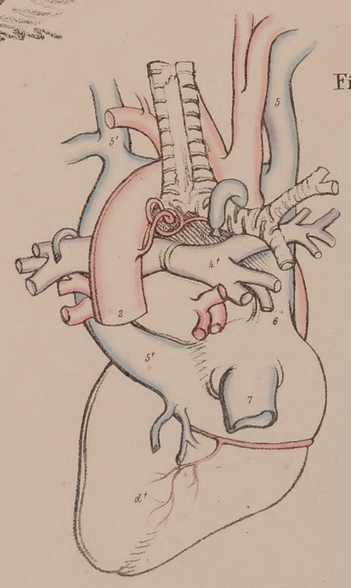

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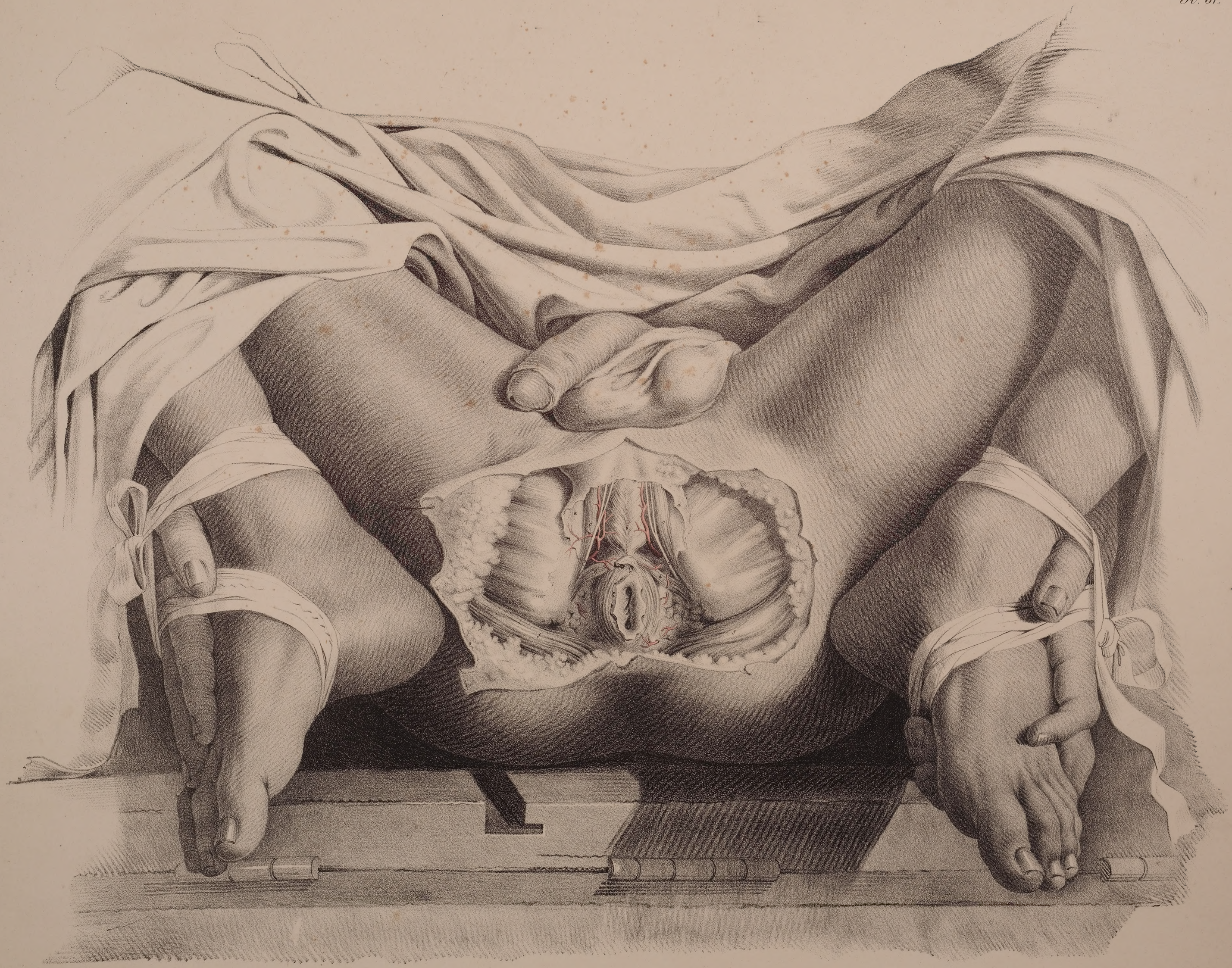
Pl. 60.



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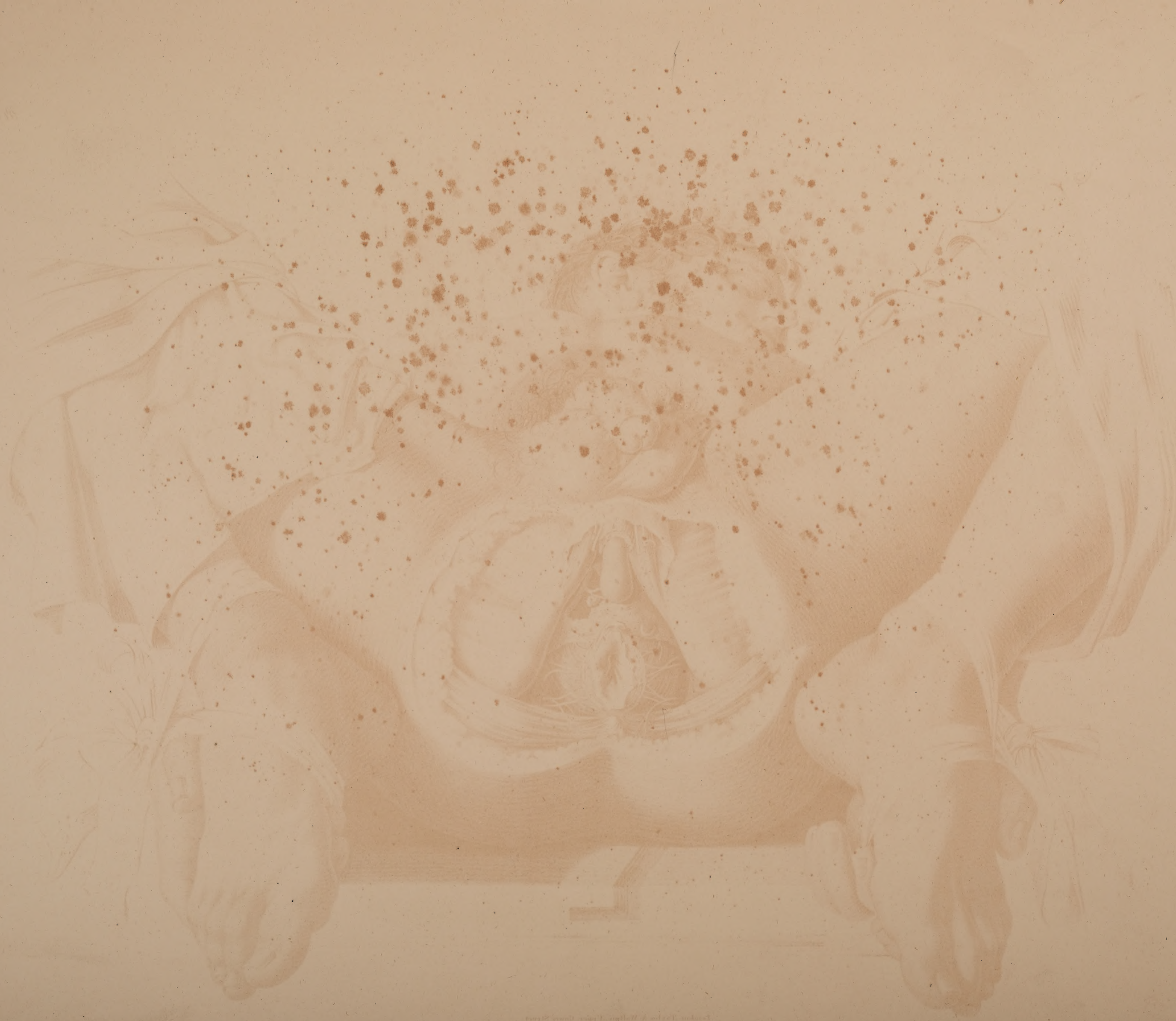

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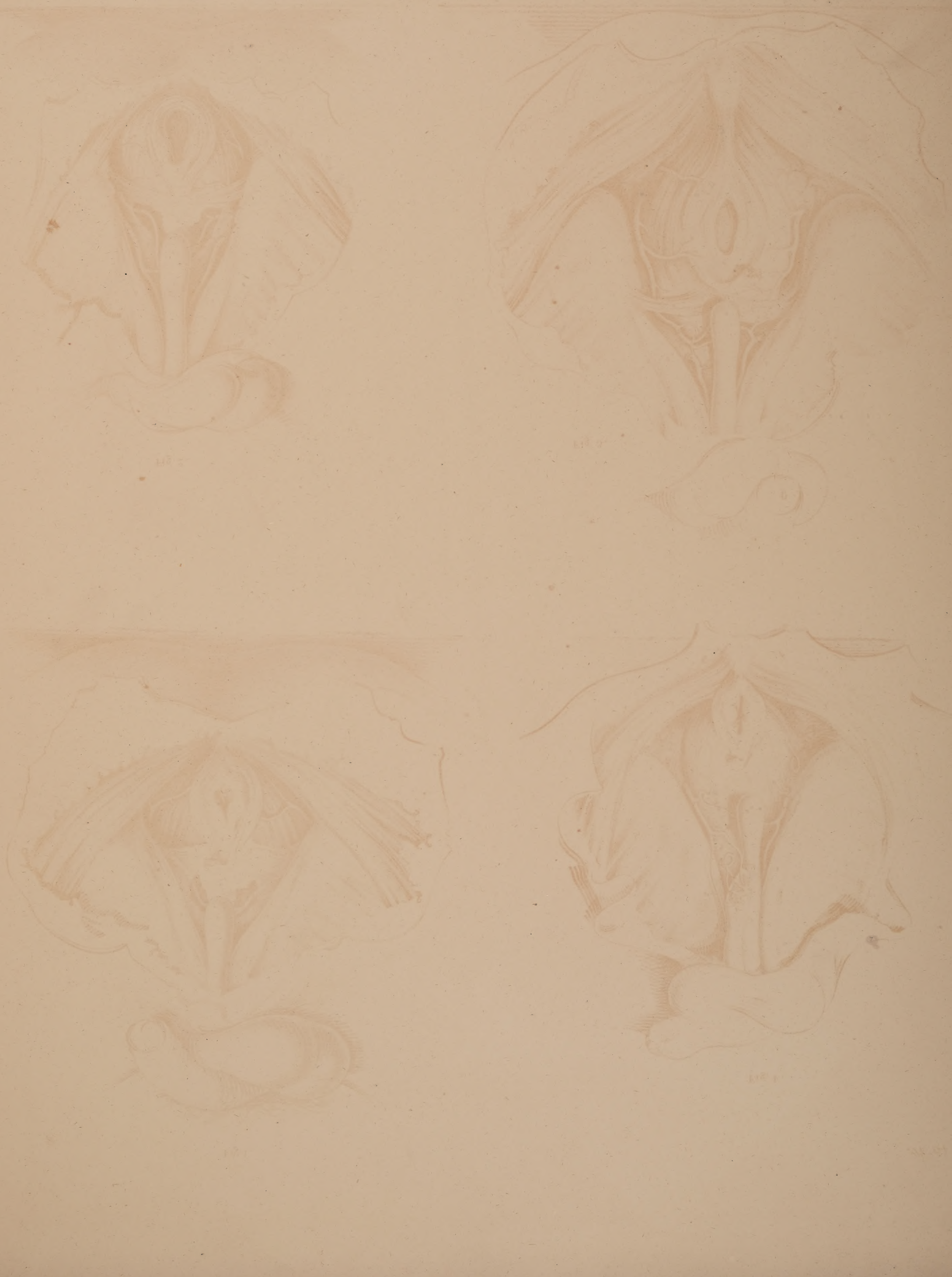

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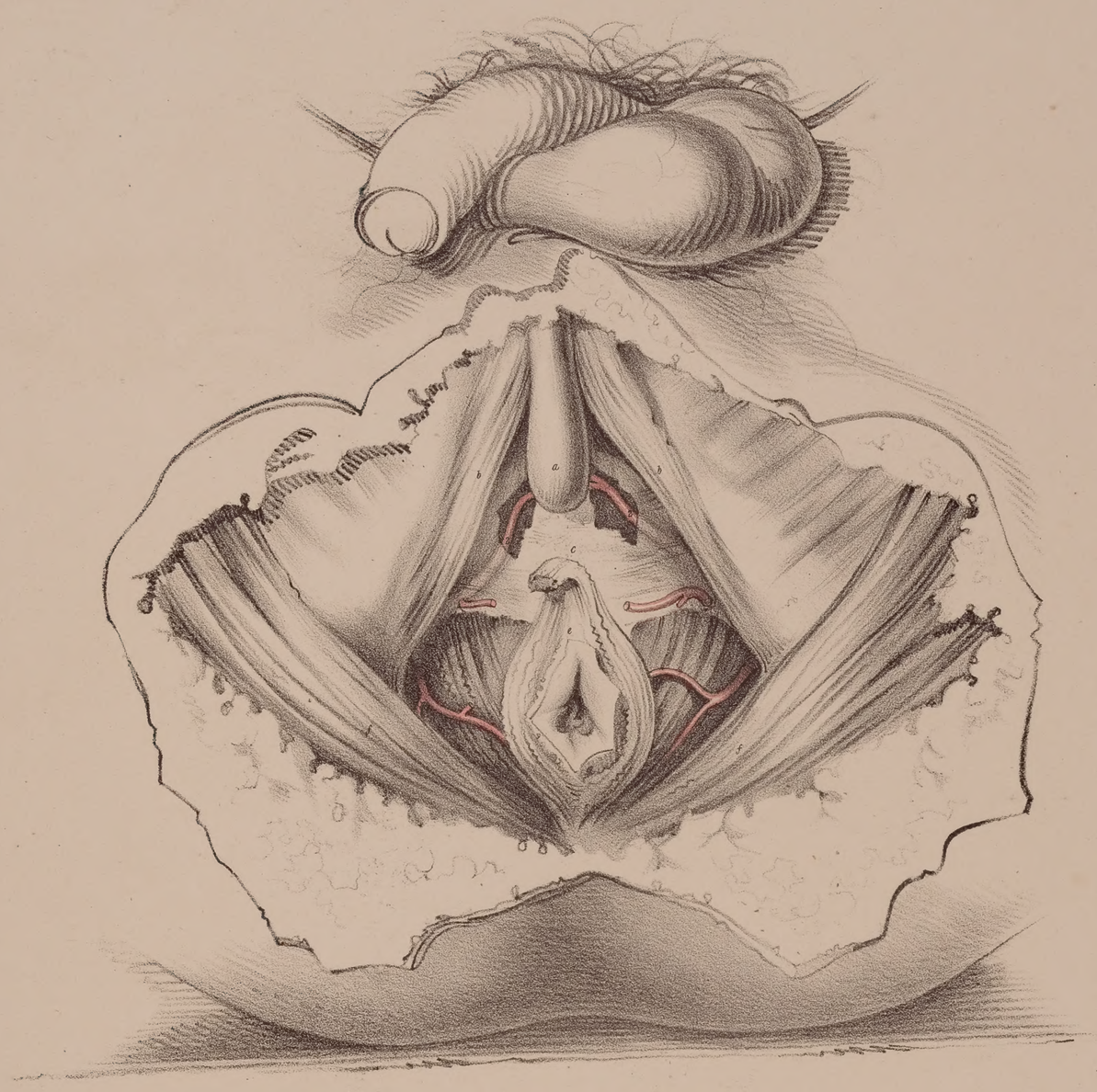

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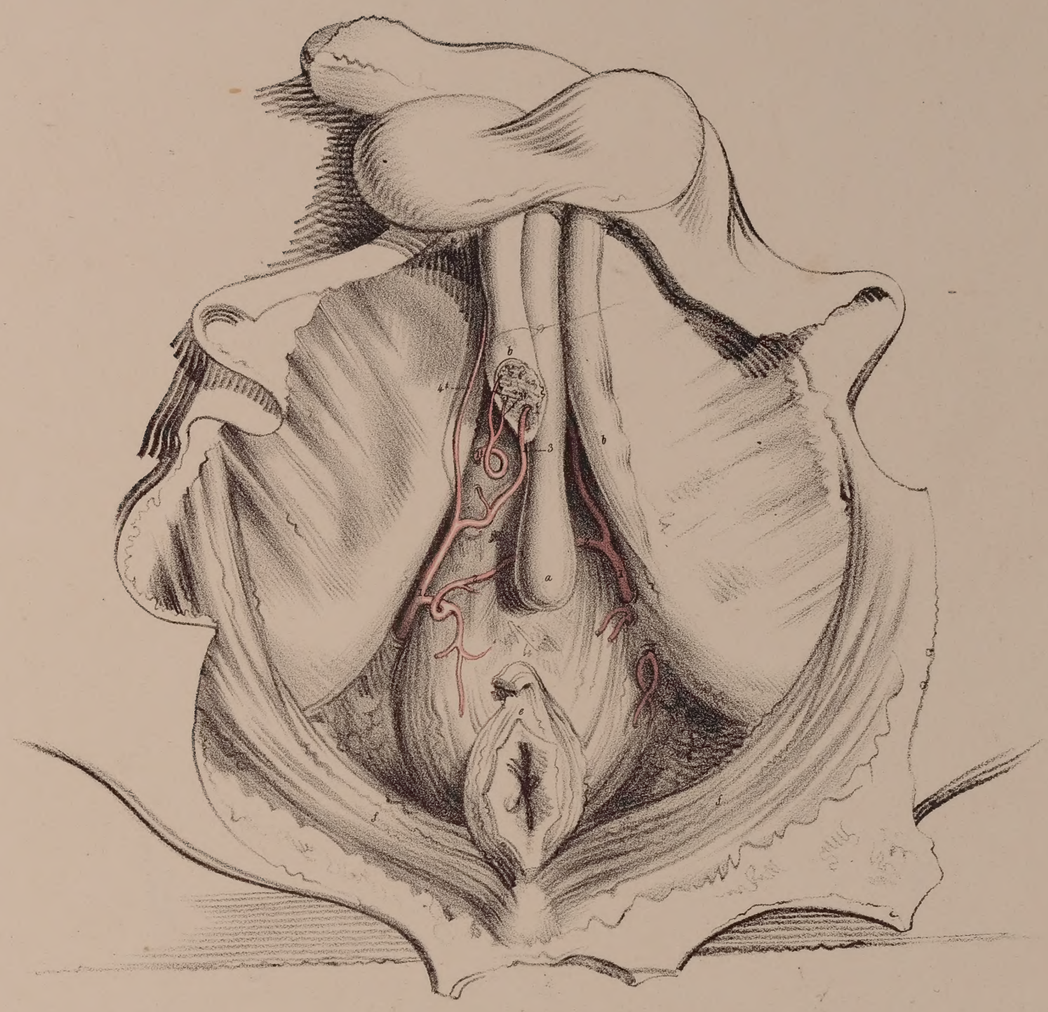

Fig. 2.

Fig. 3.

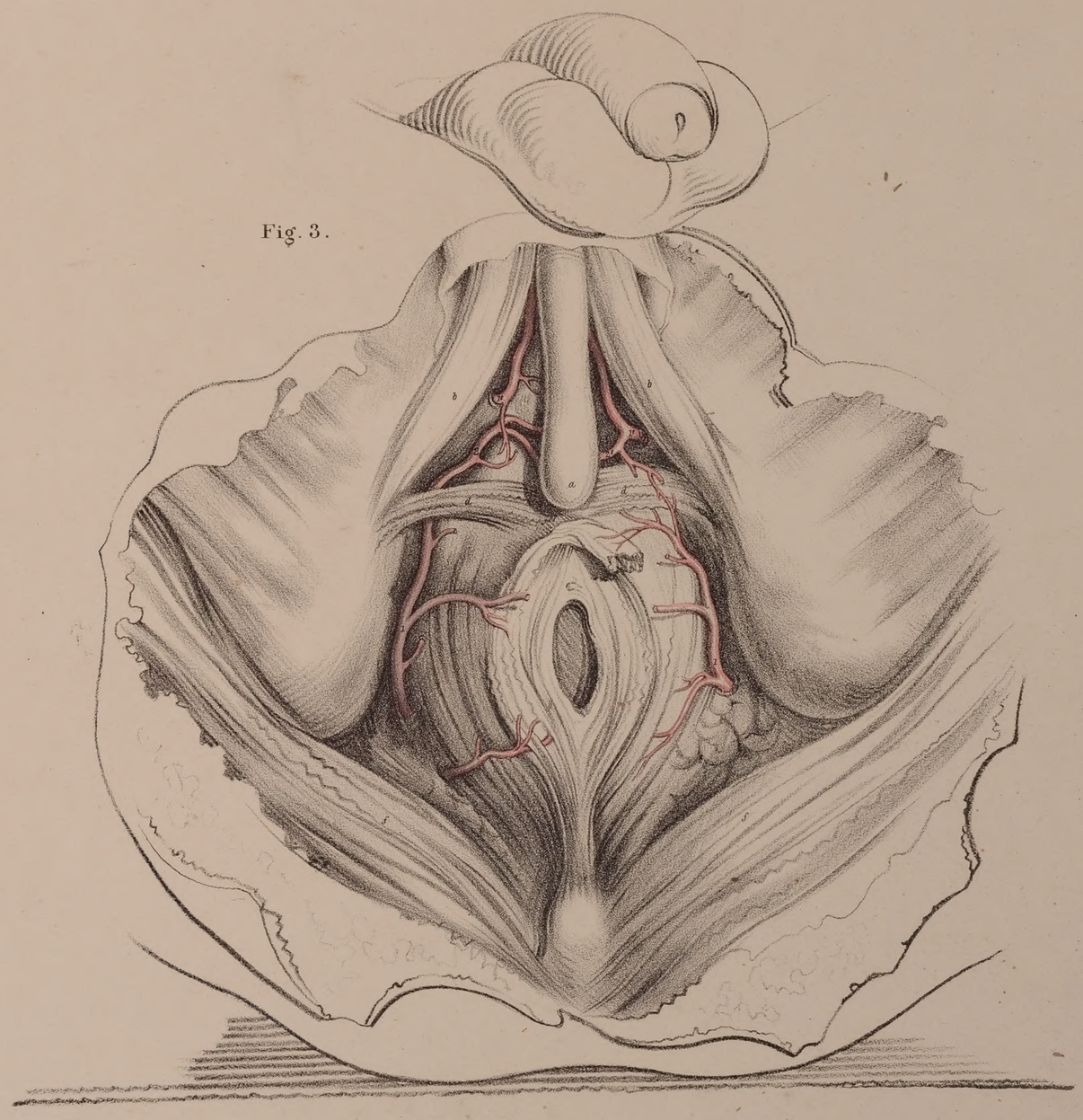

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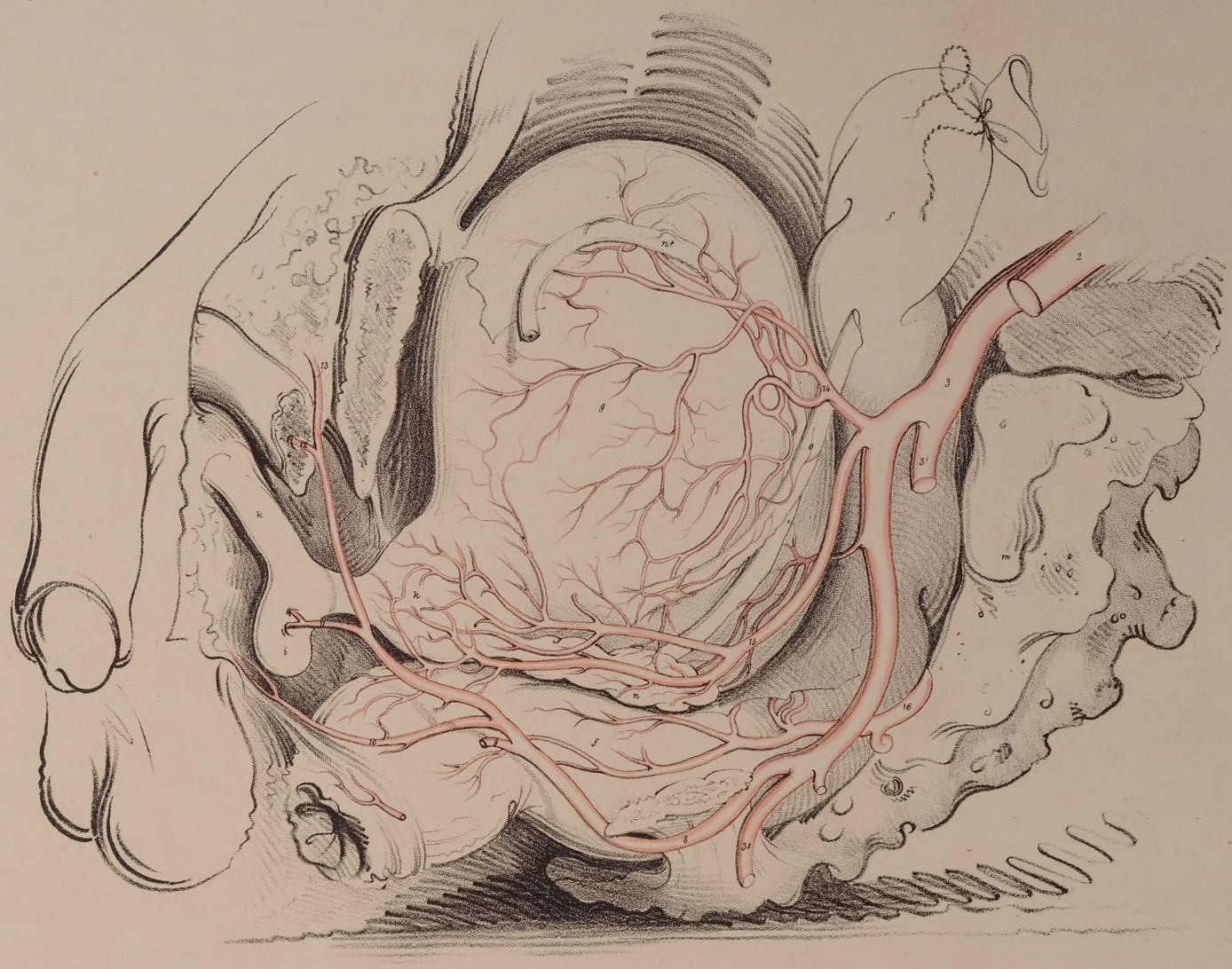
Fig. 2.



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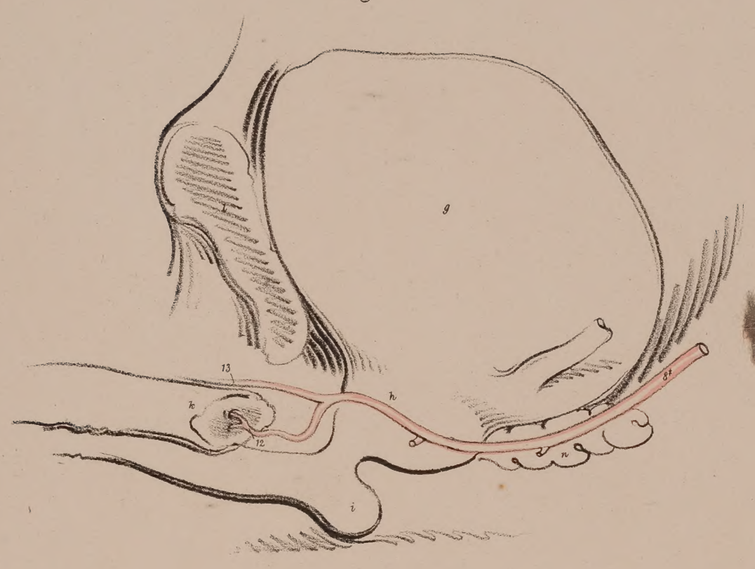

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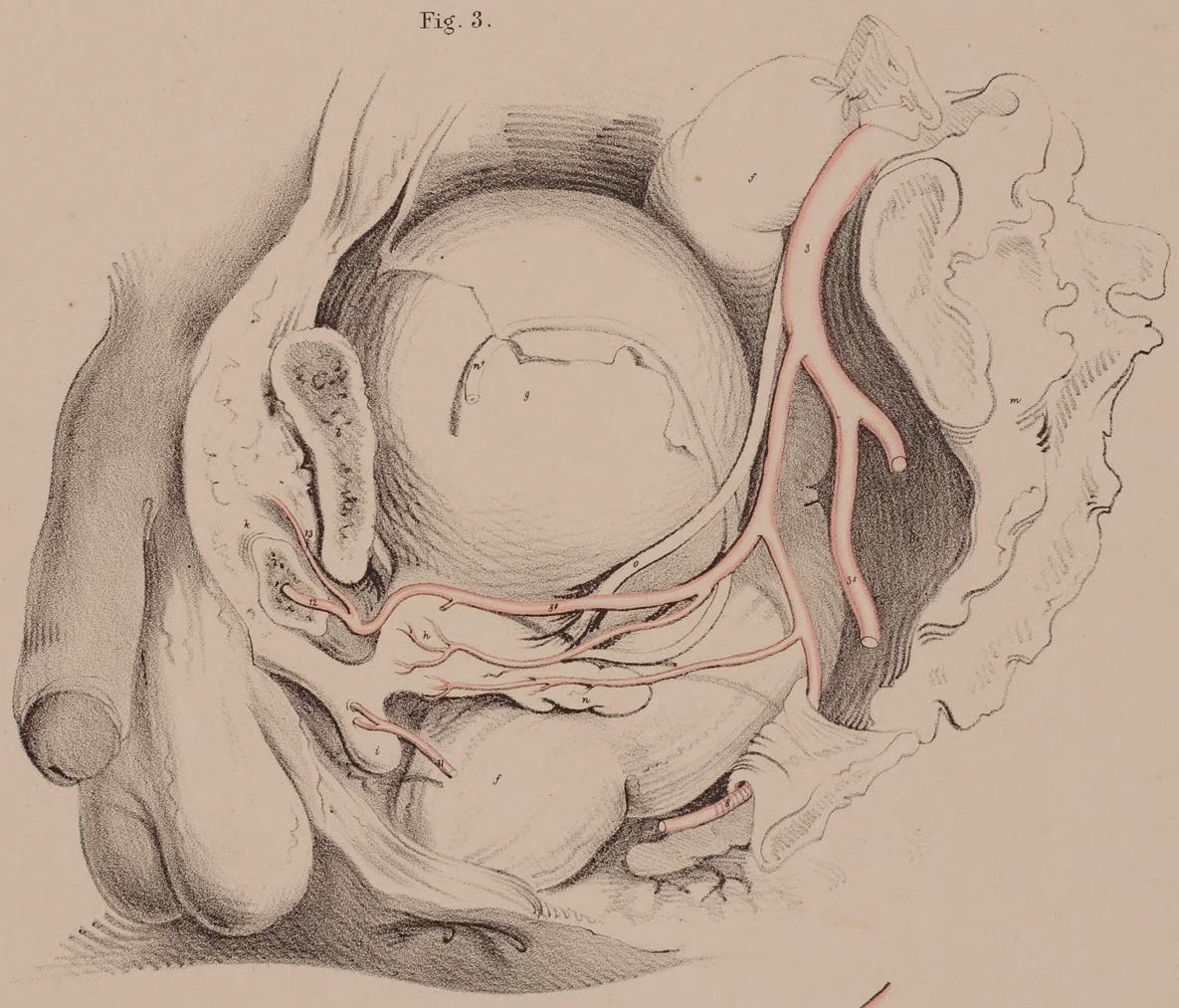

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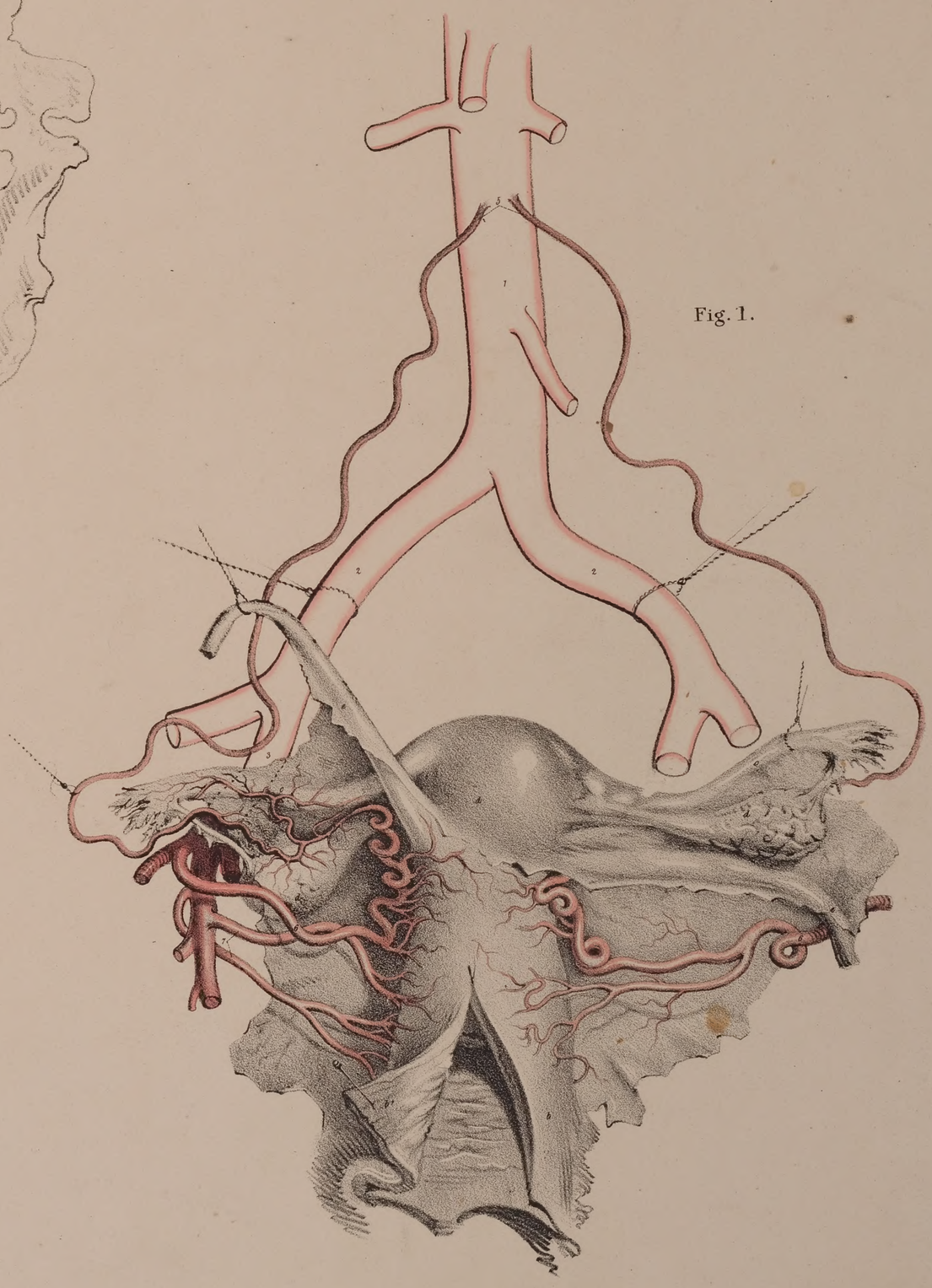

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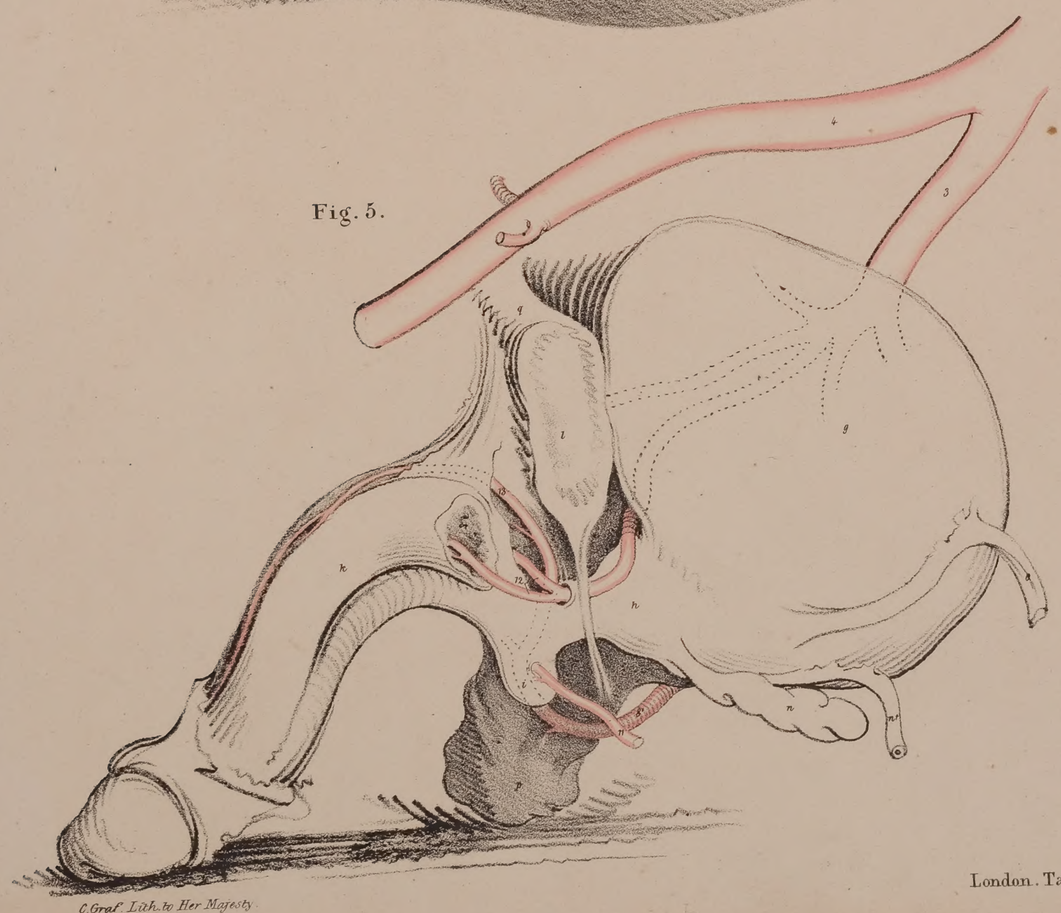

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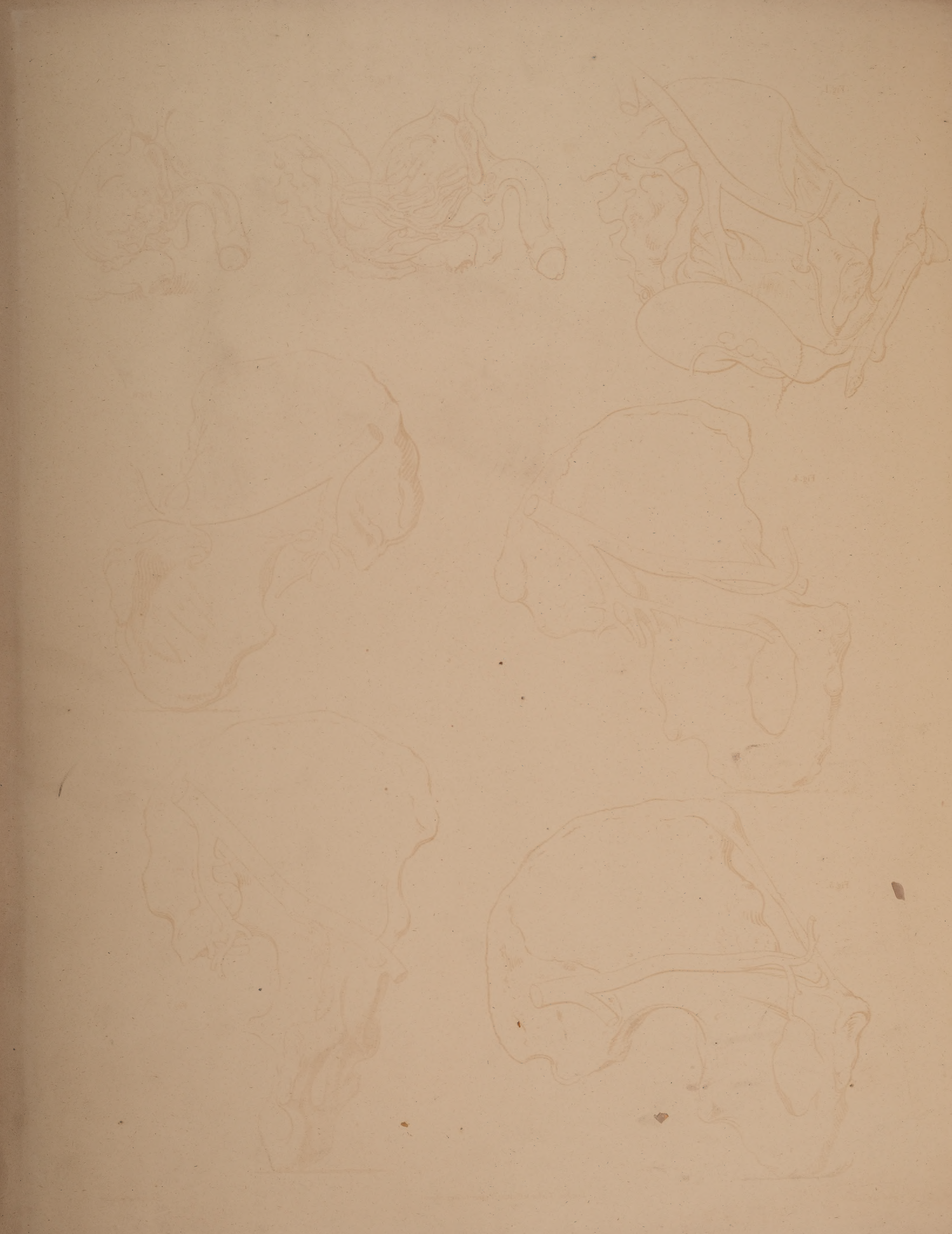

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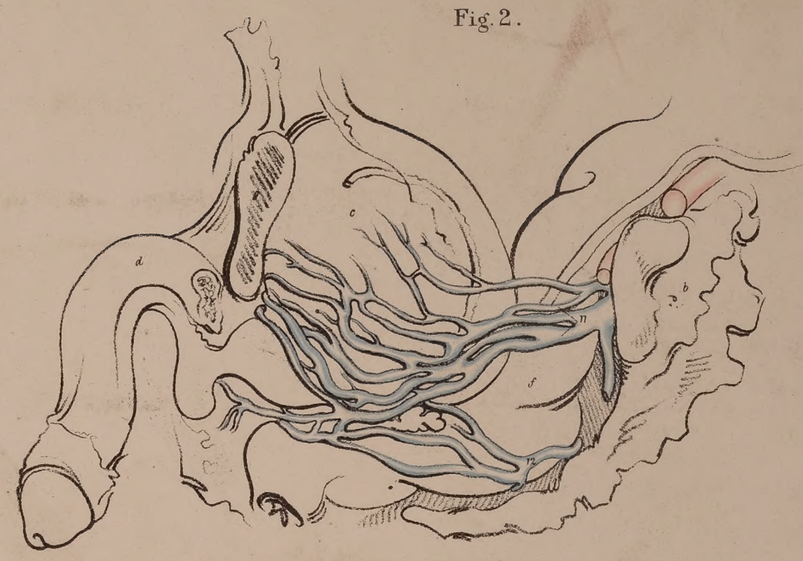

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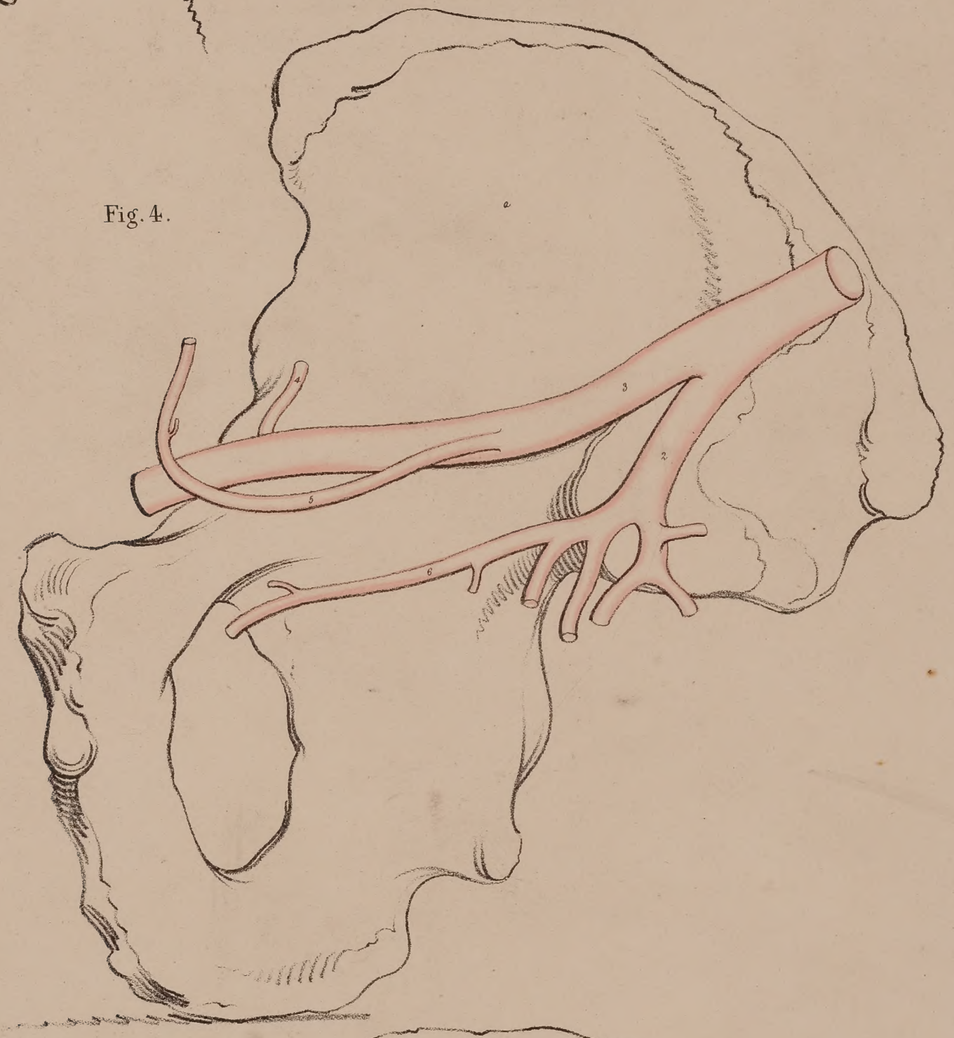

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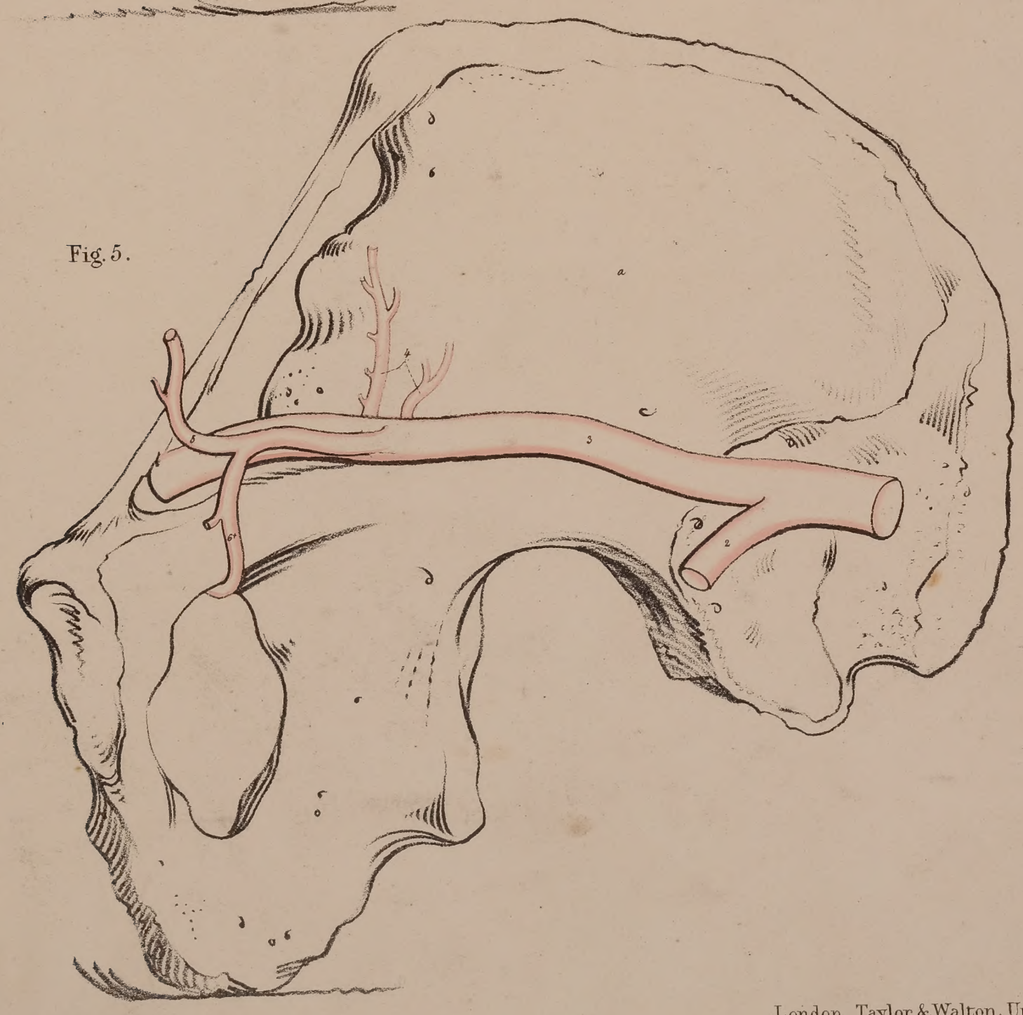

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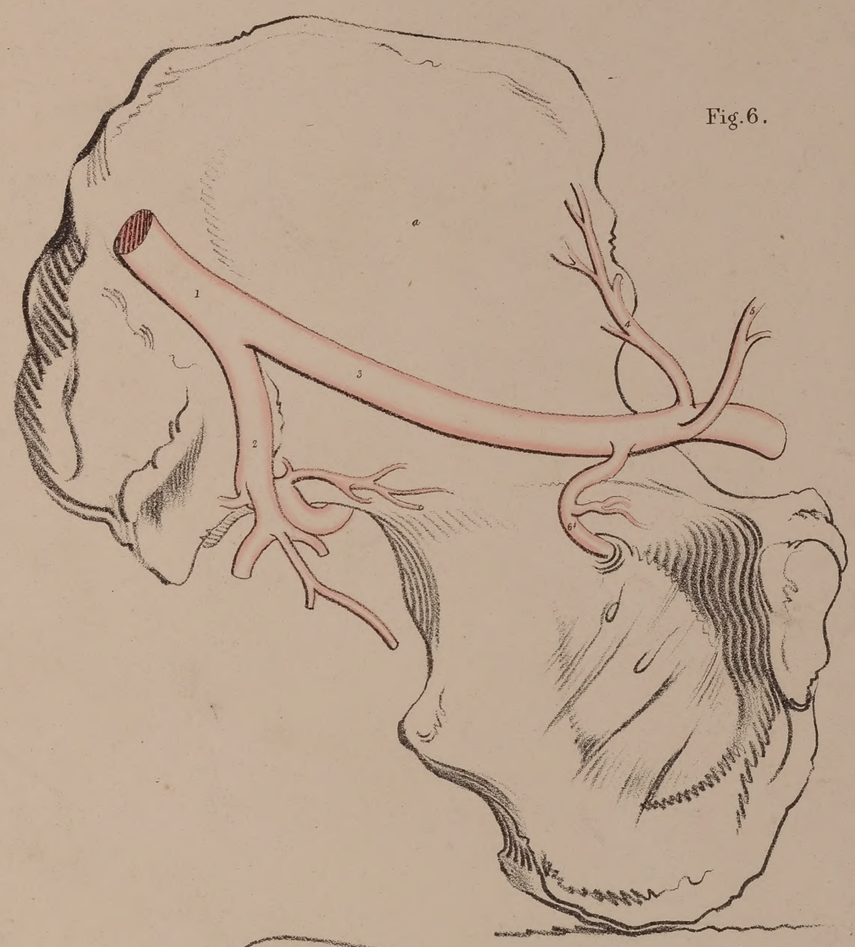

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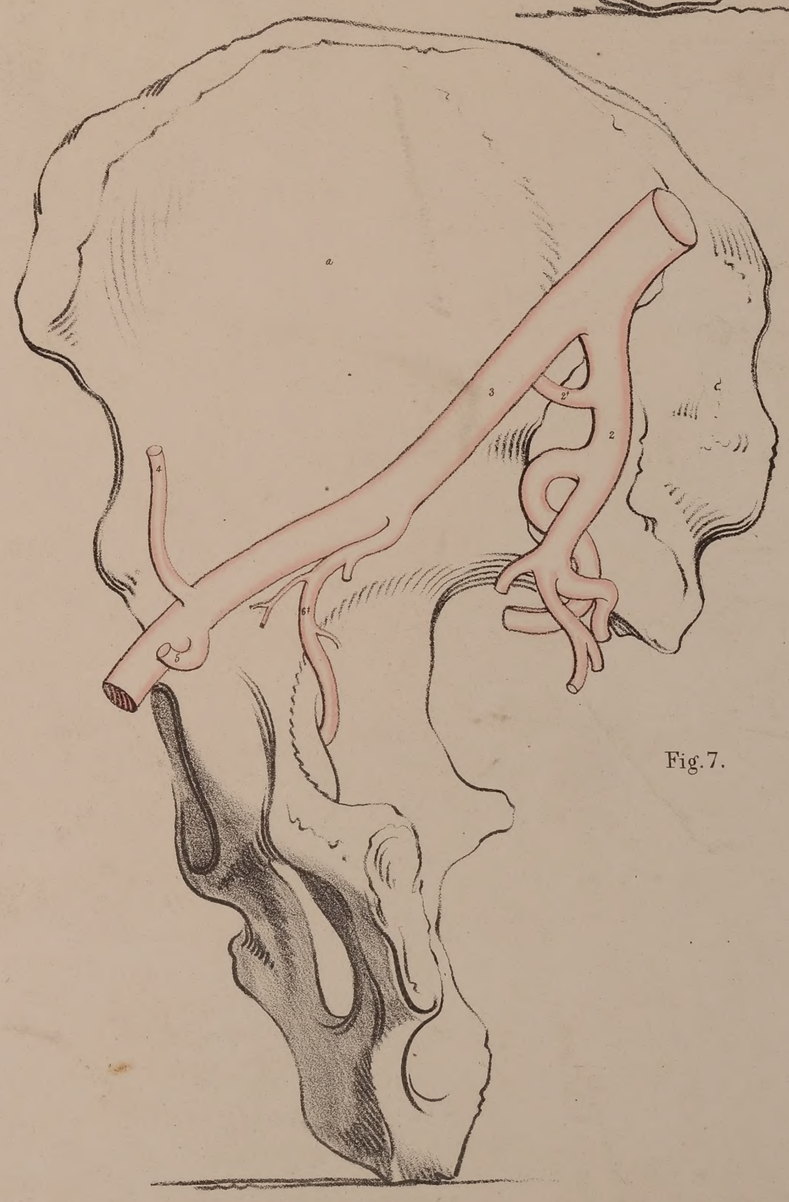

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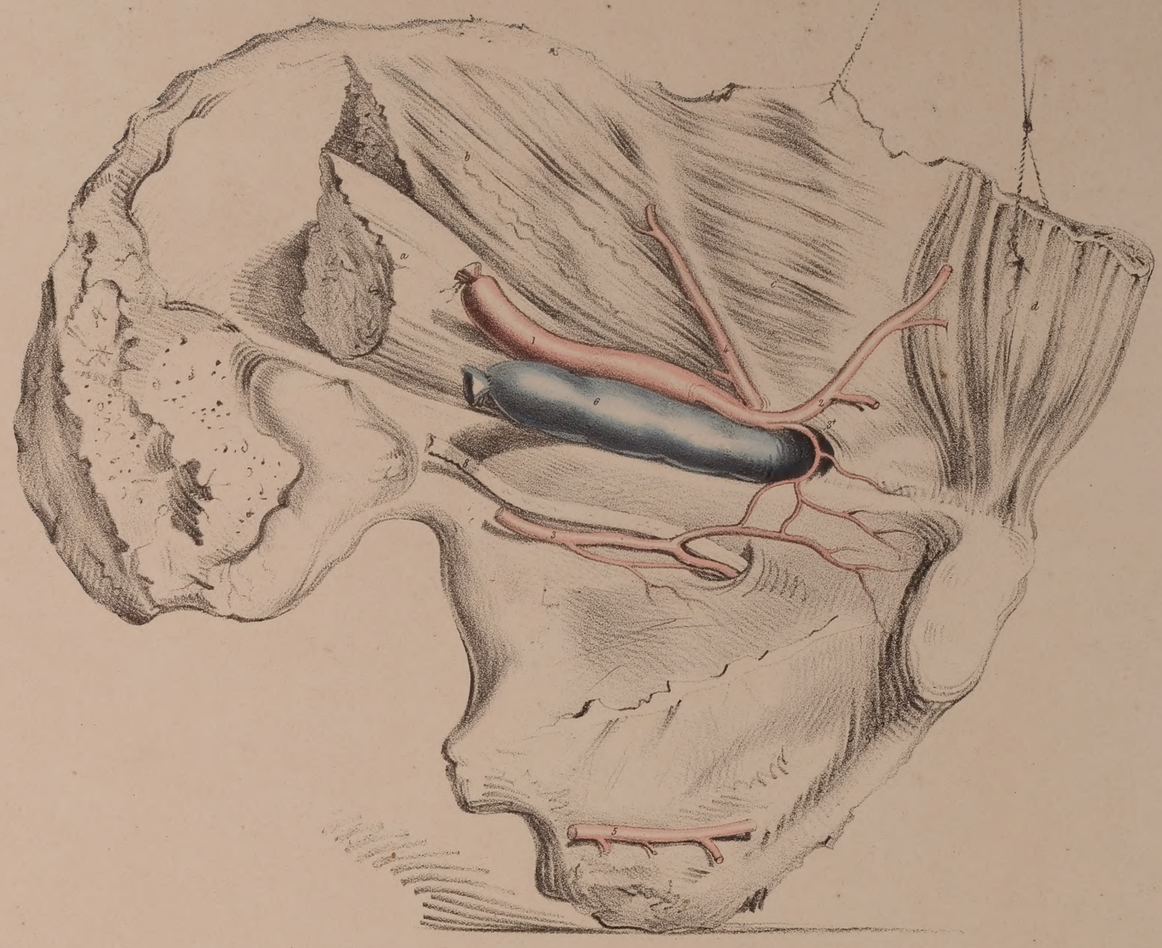

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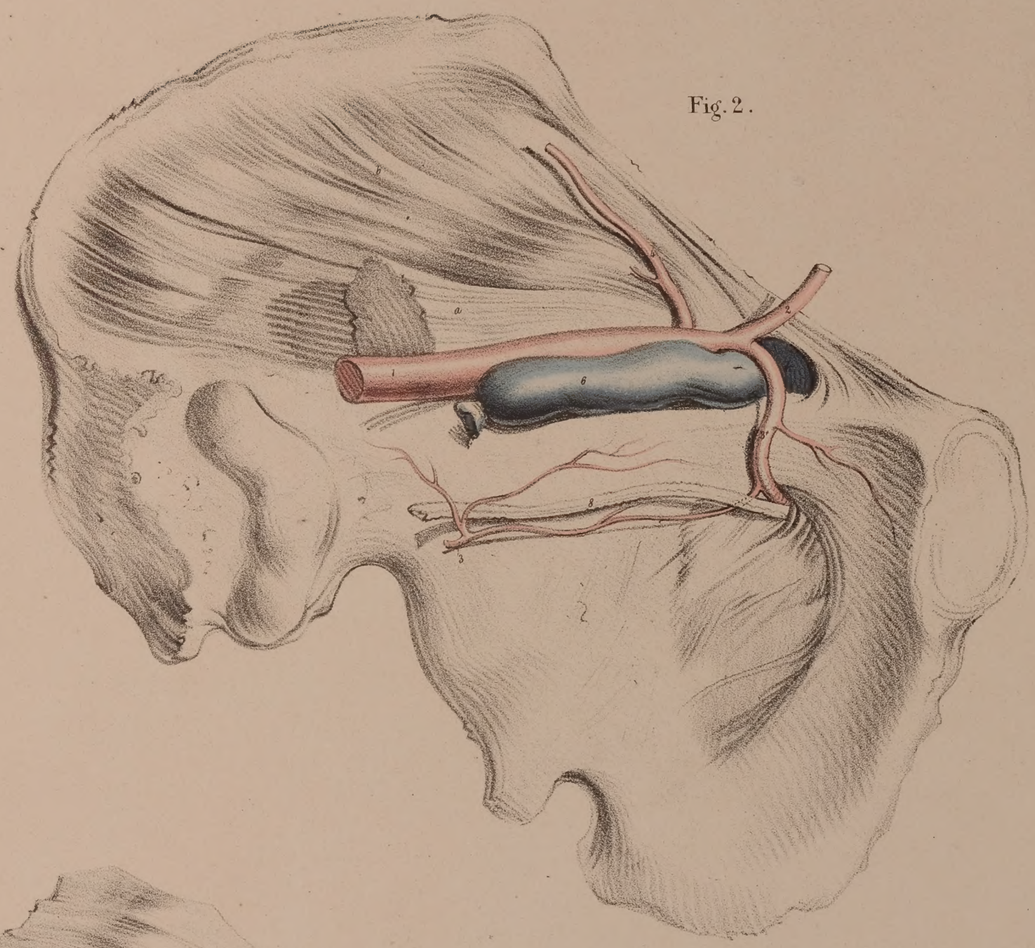

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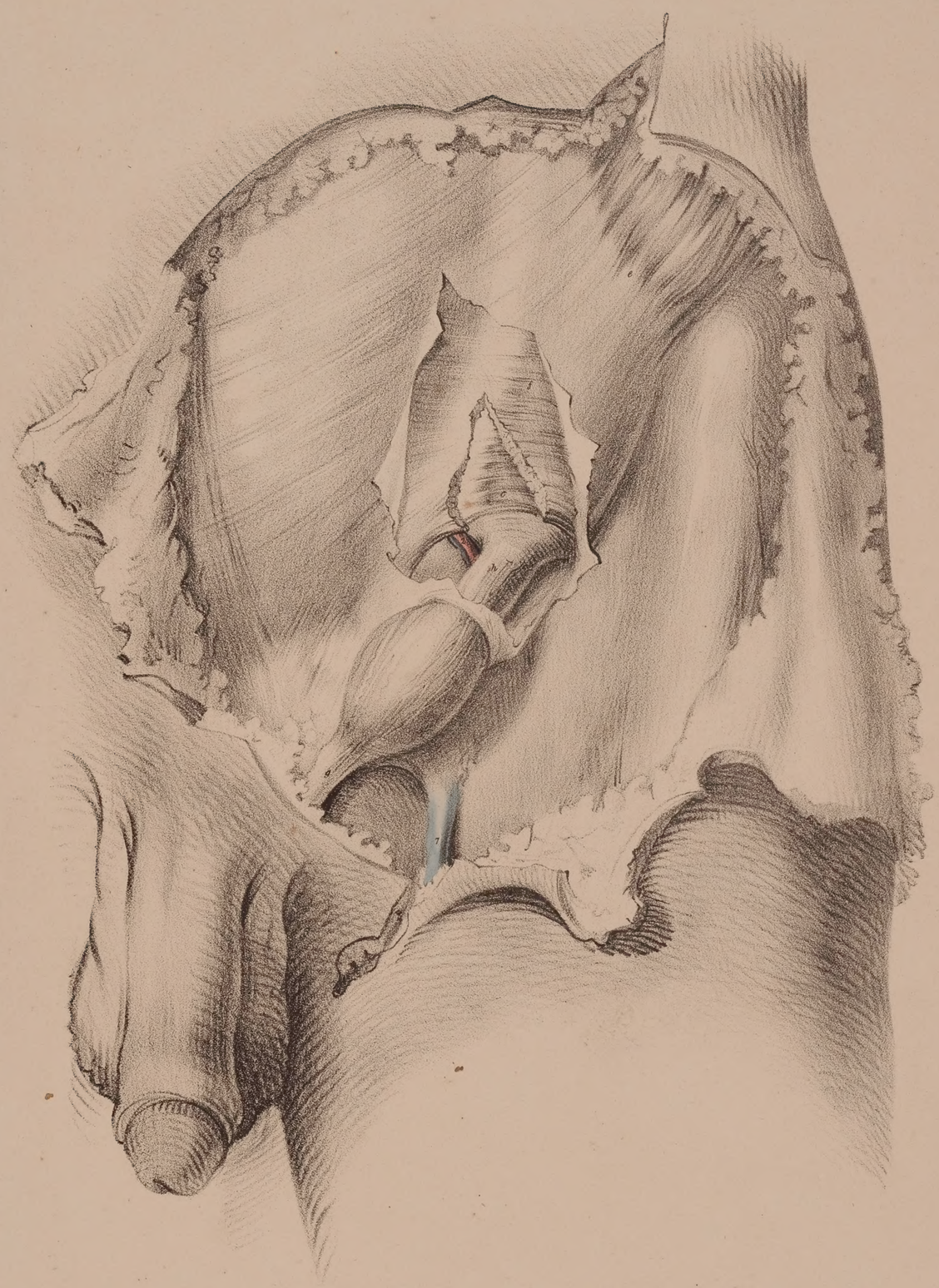

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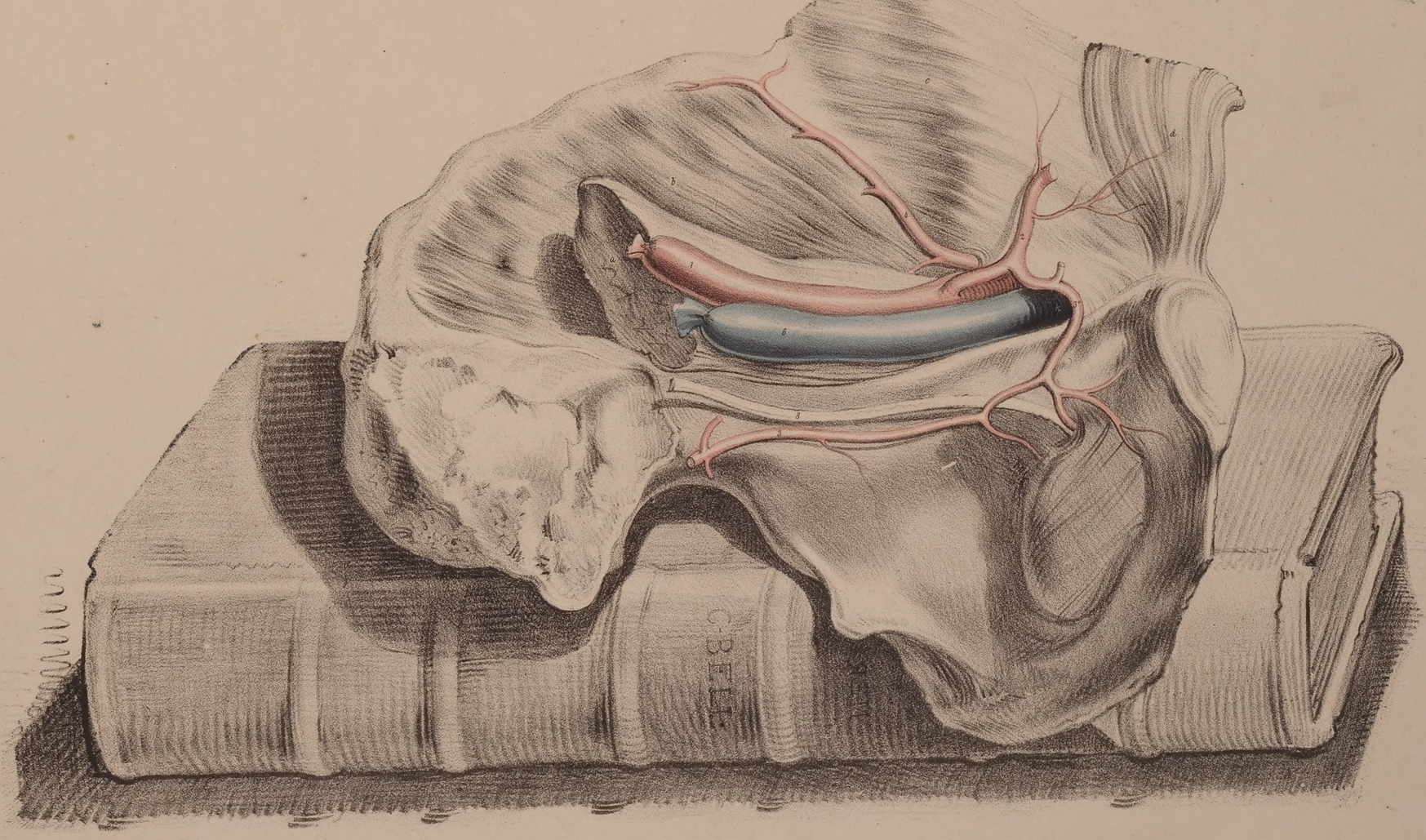

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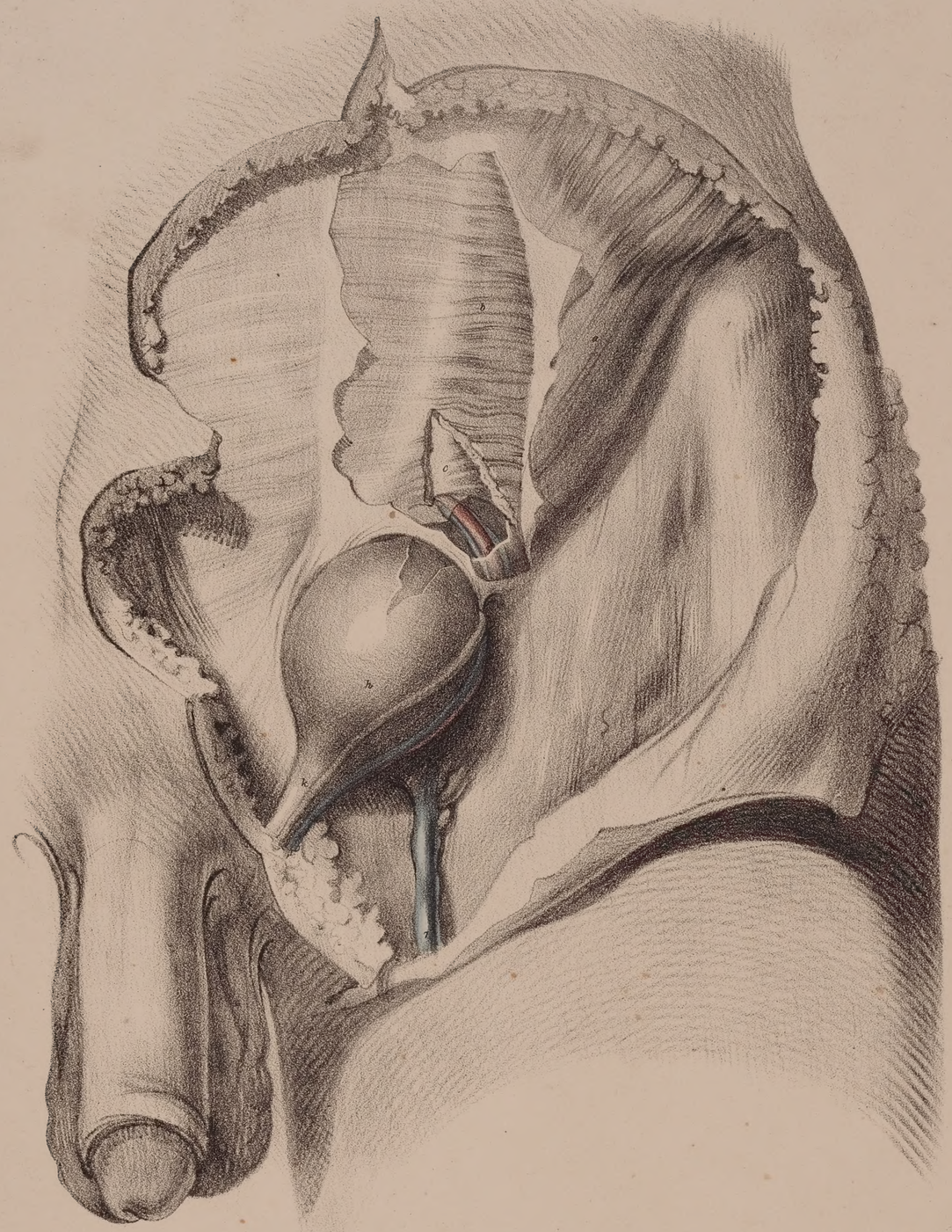

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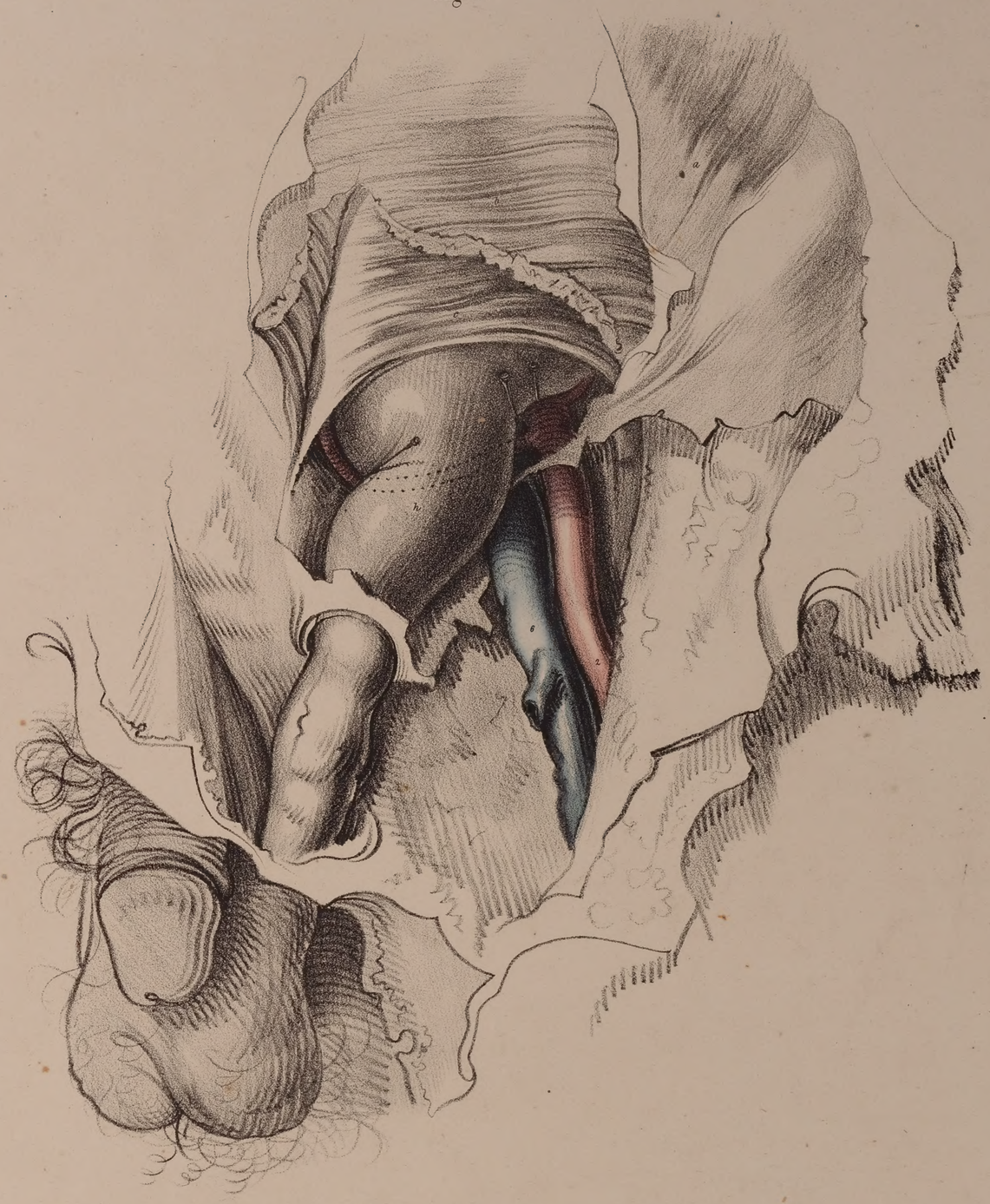

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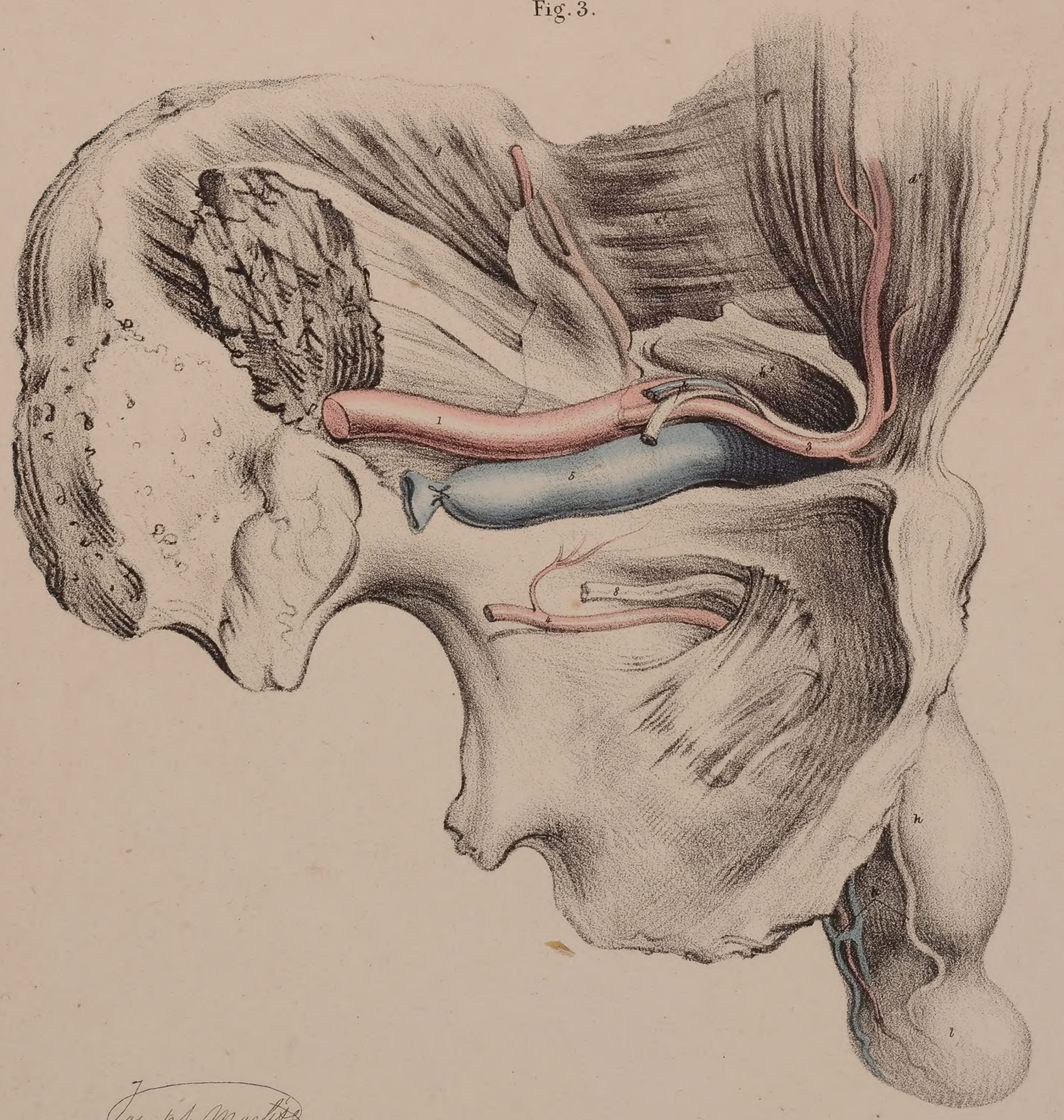

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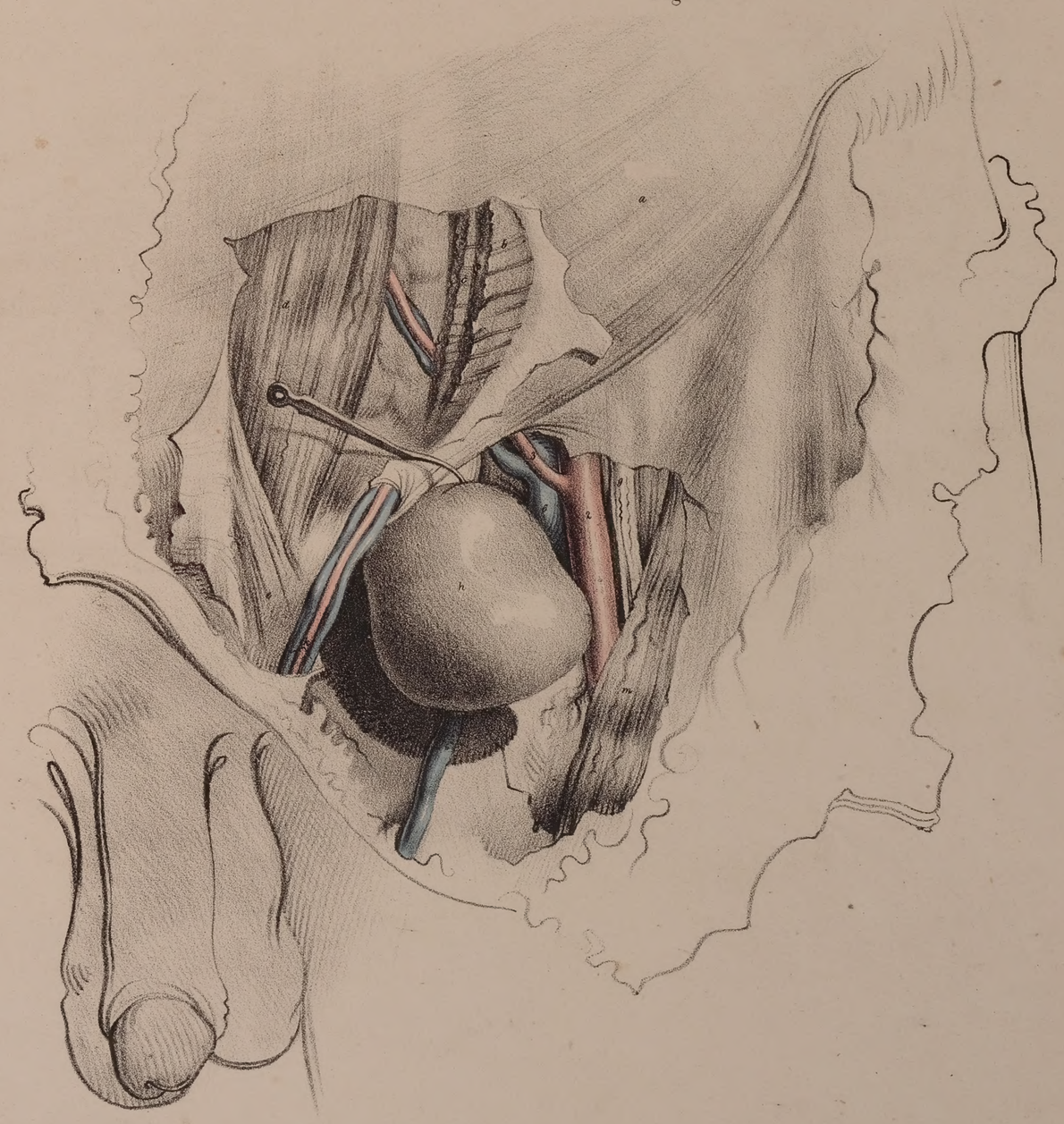

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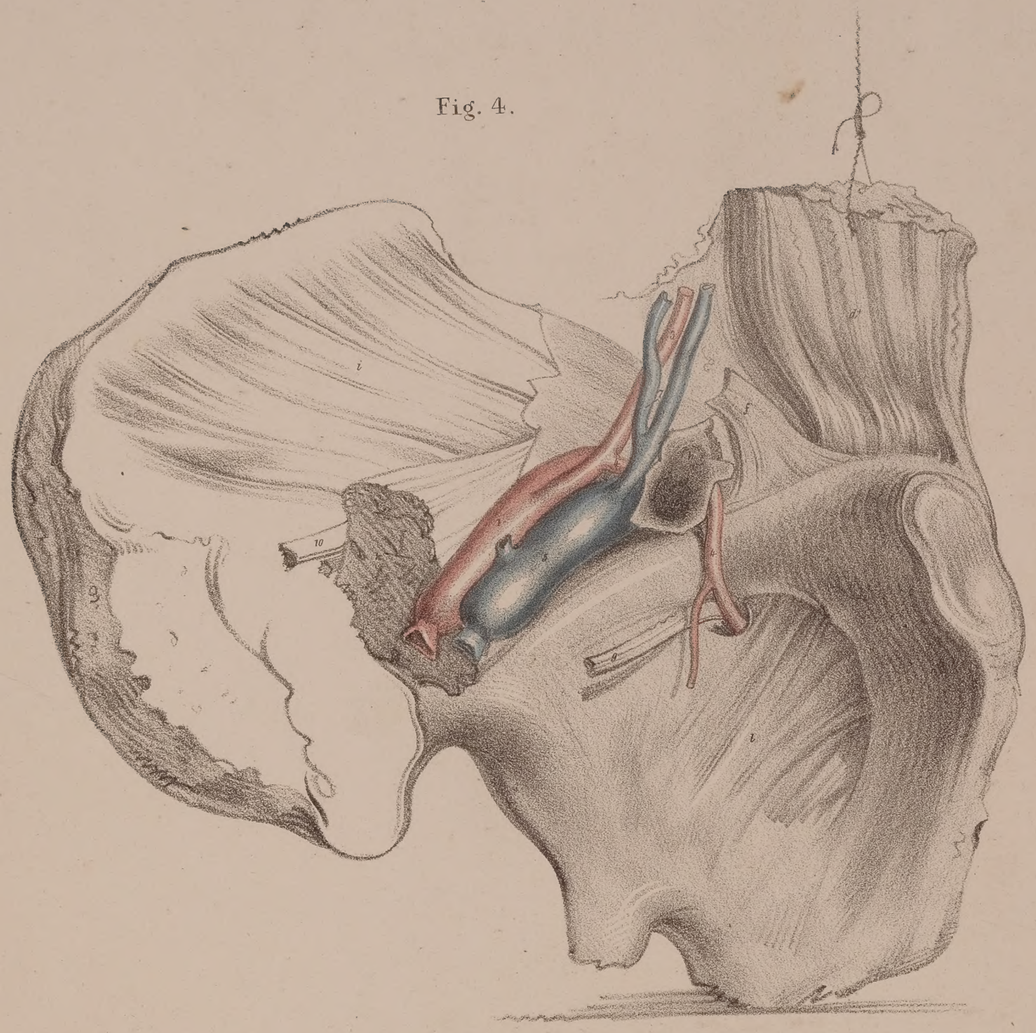
Fig. 4.



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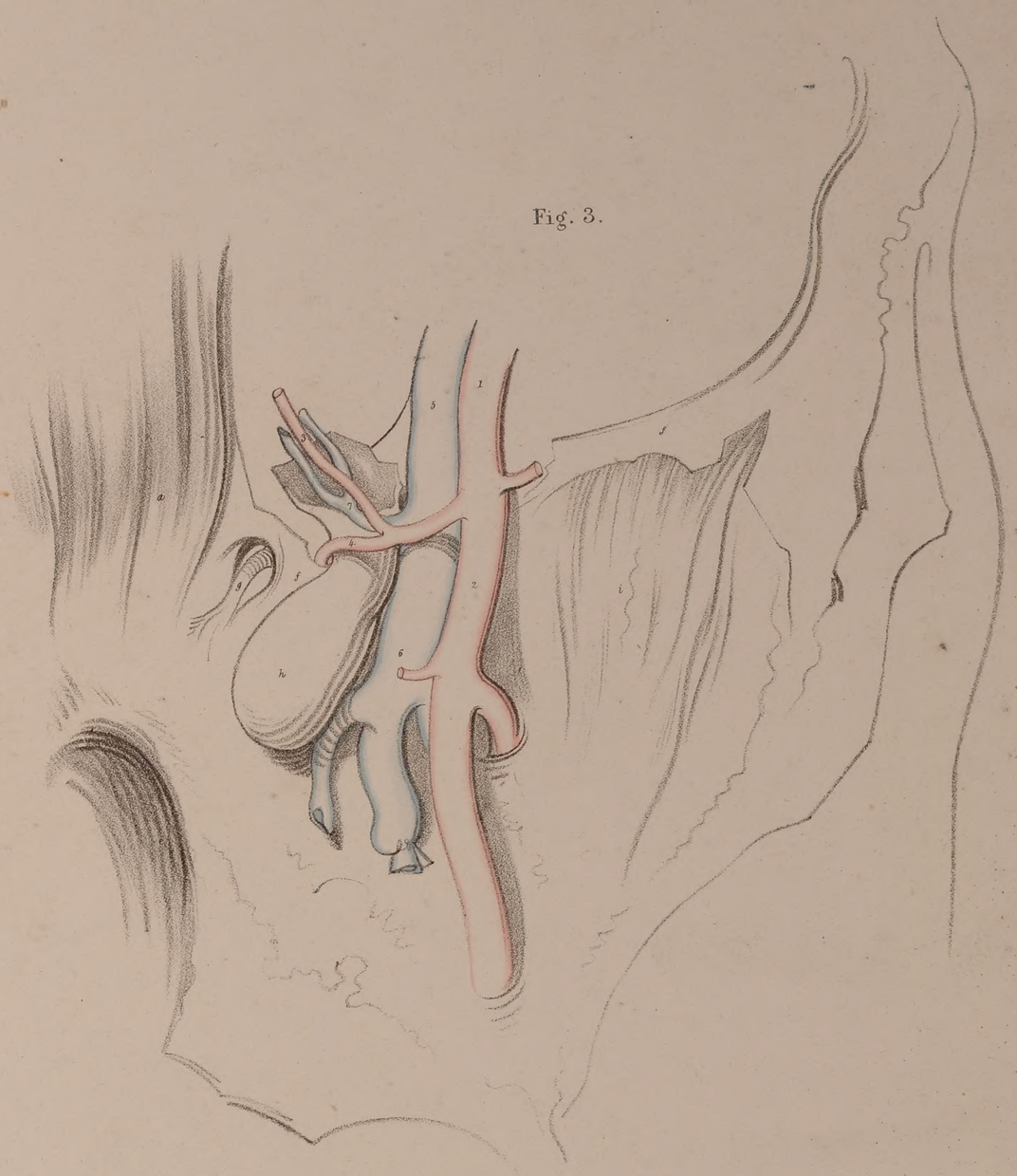

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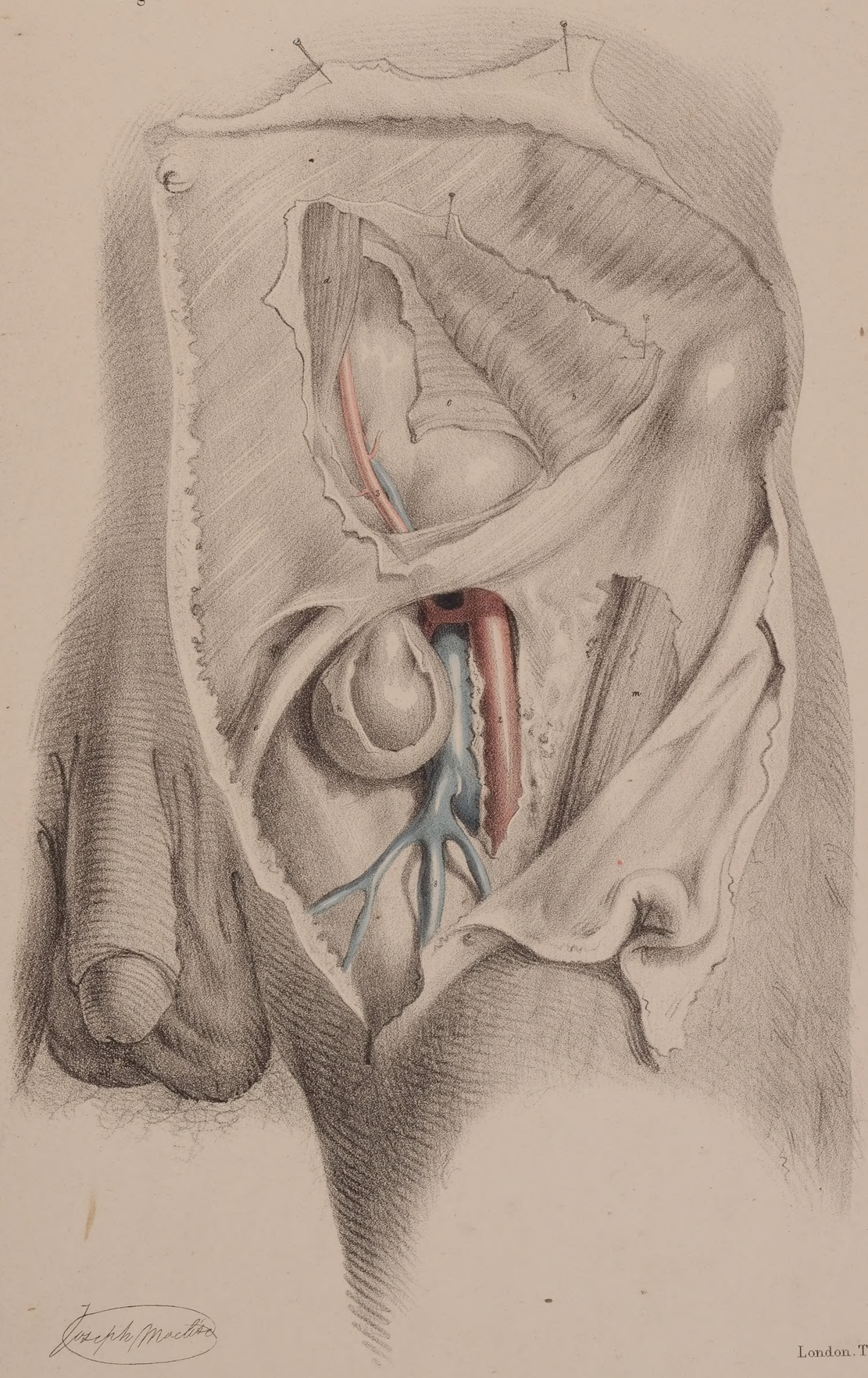

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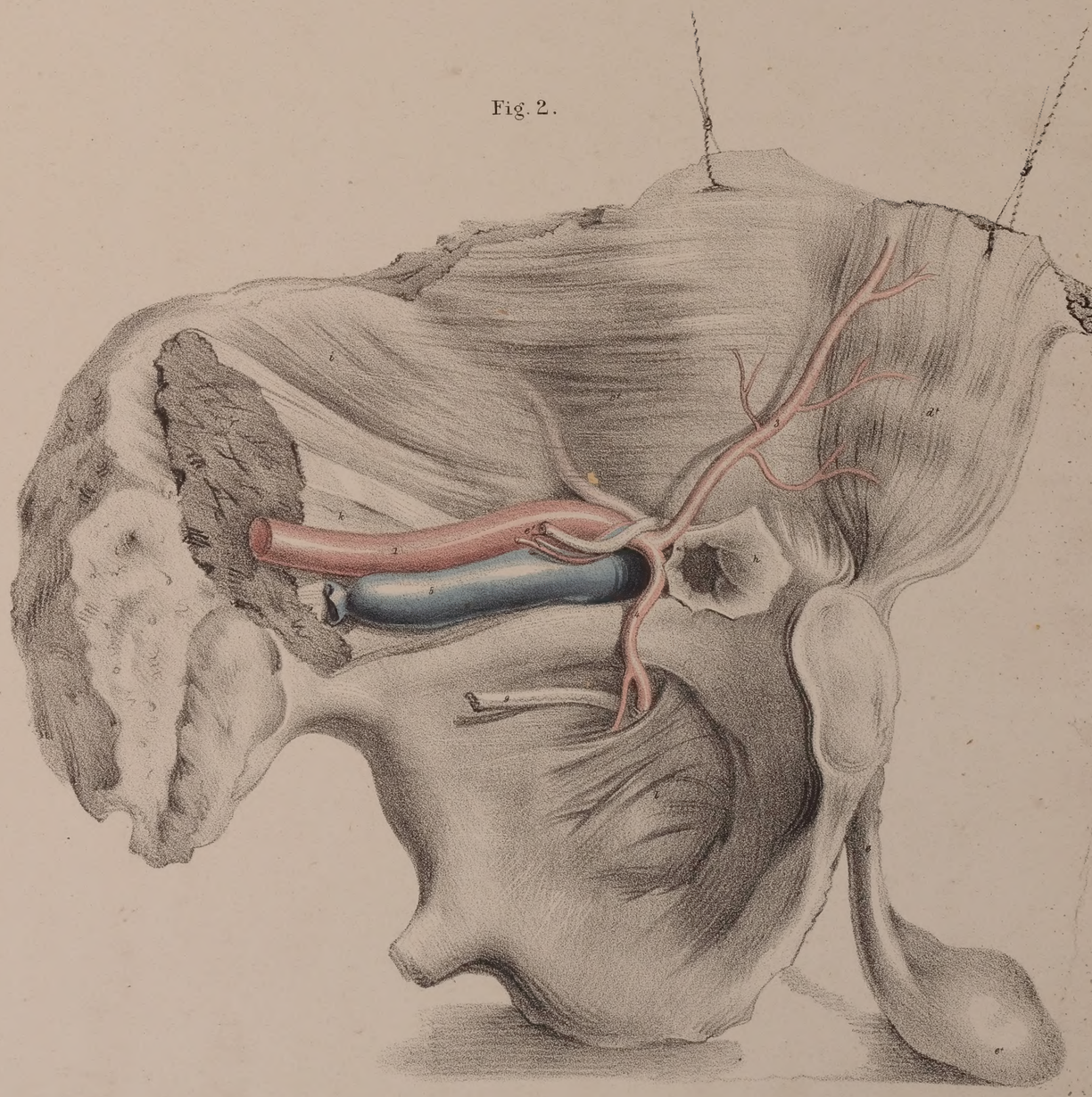

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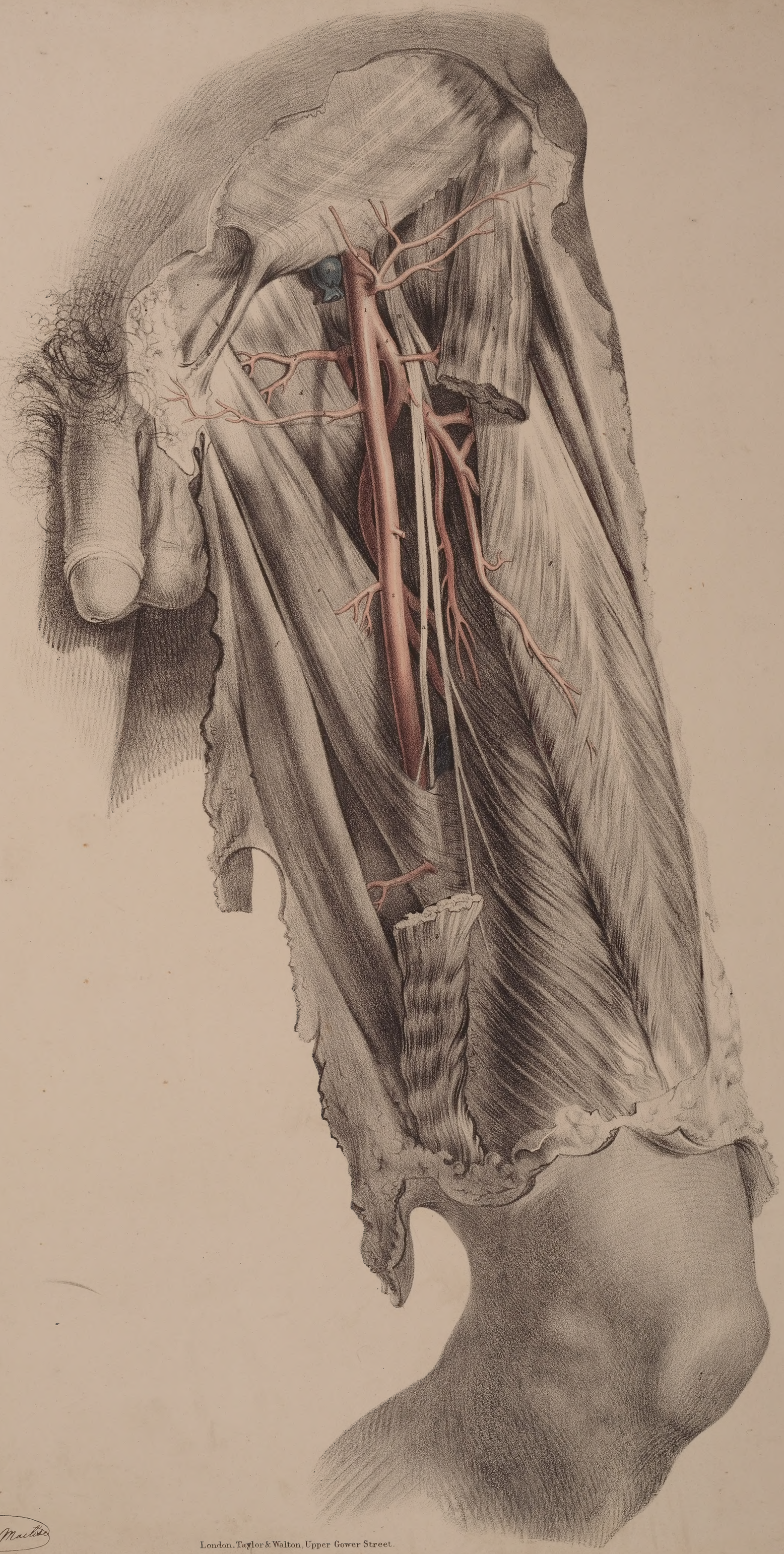

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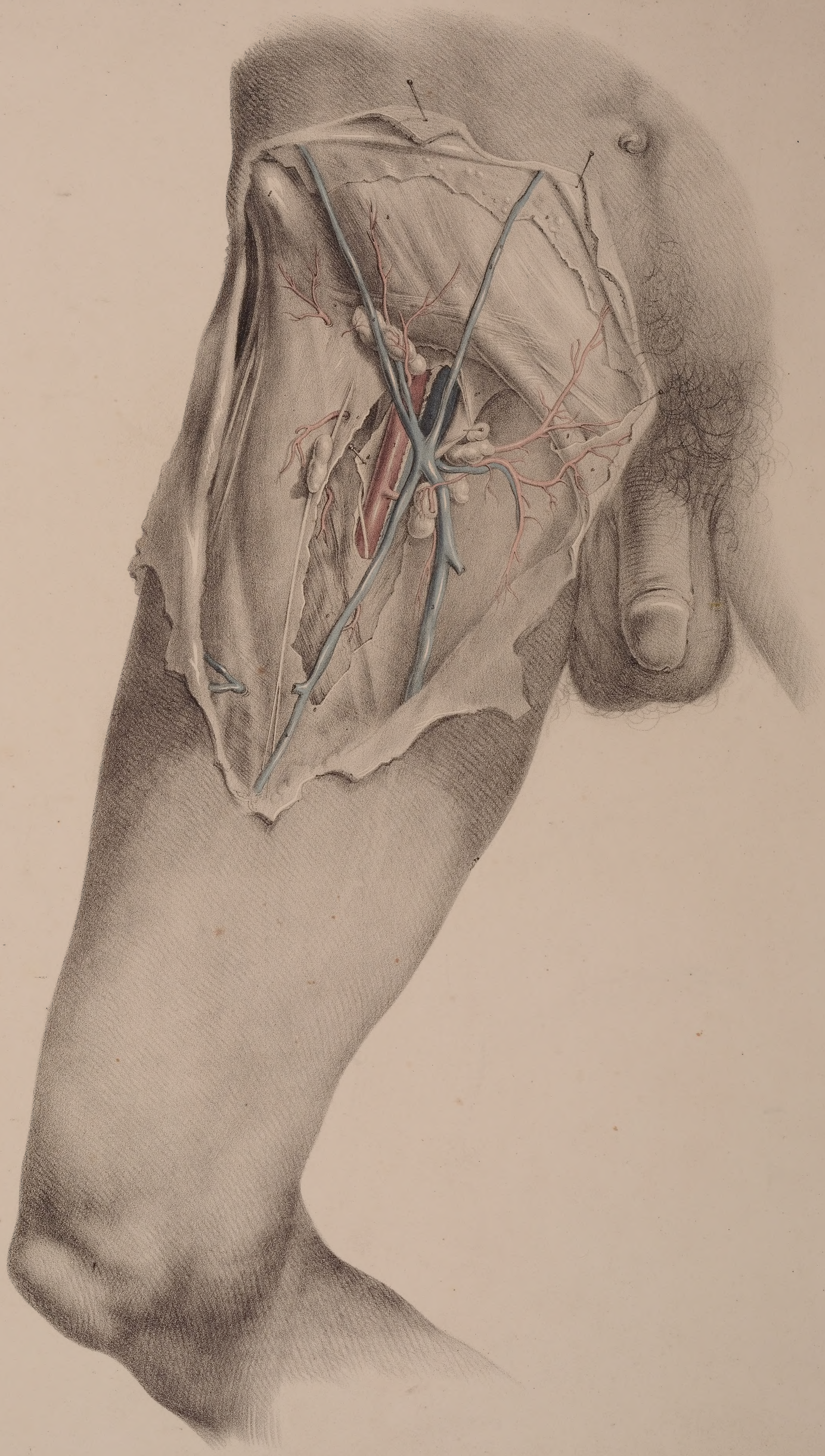

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Pl. 71.

Fig. 2.

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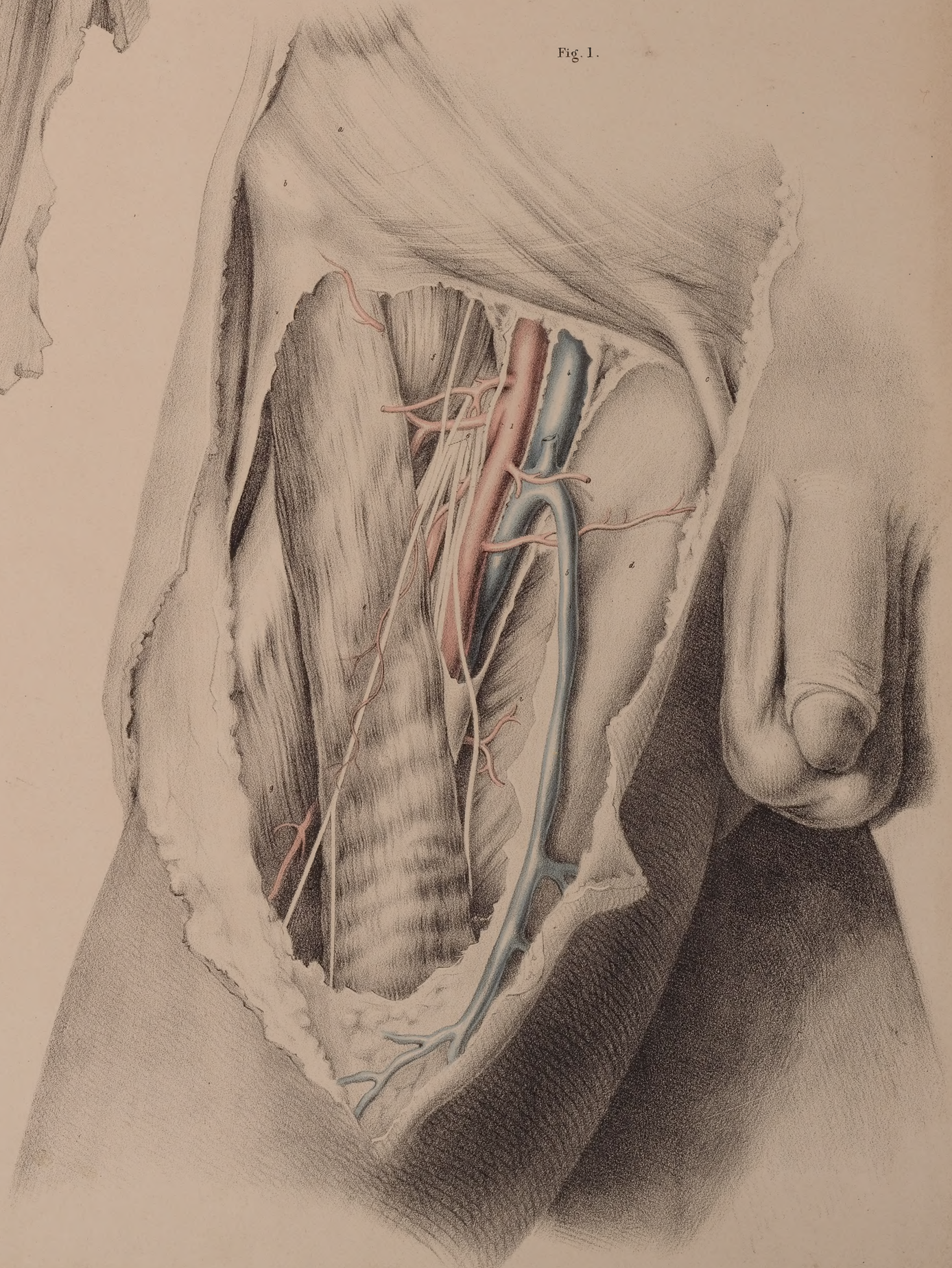

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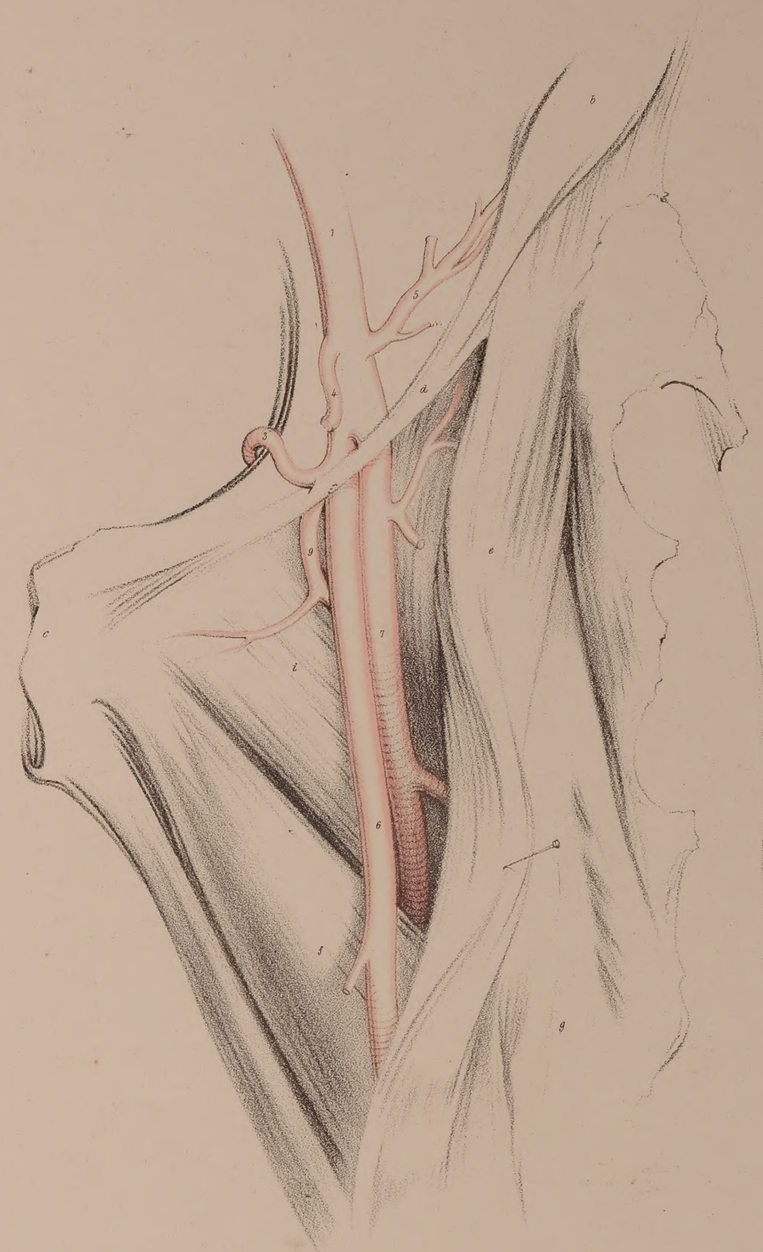
Fig. 3.

Fig. 4.



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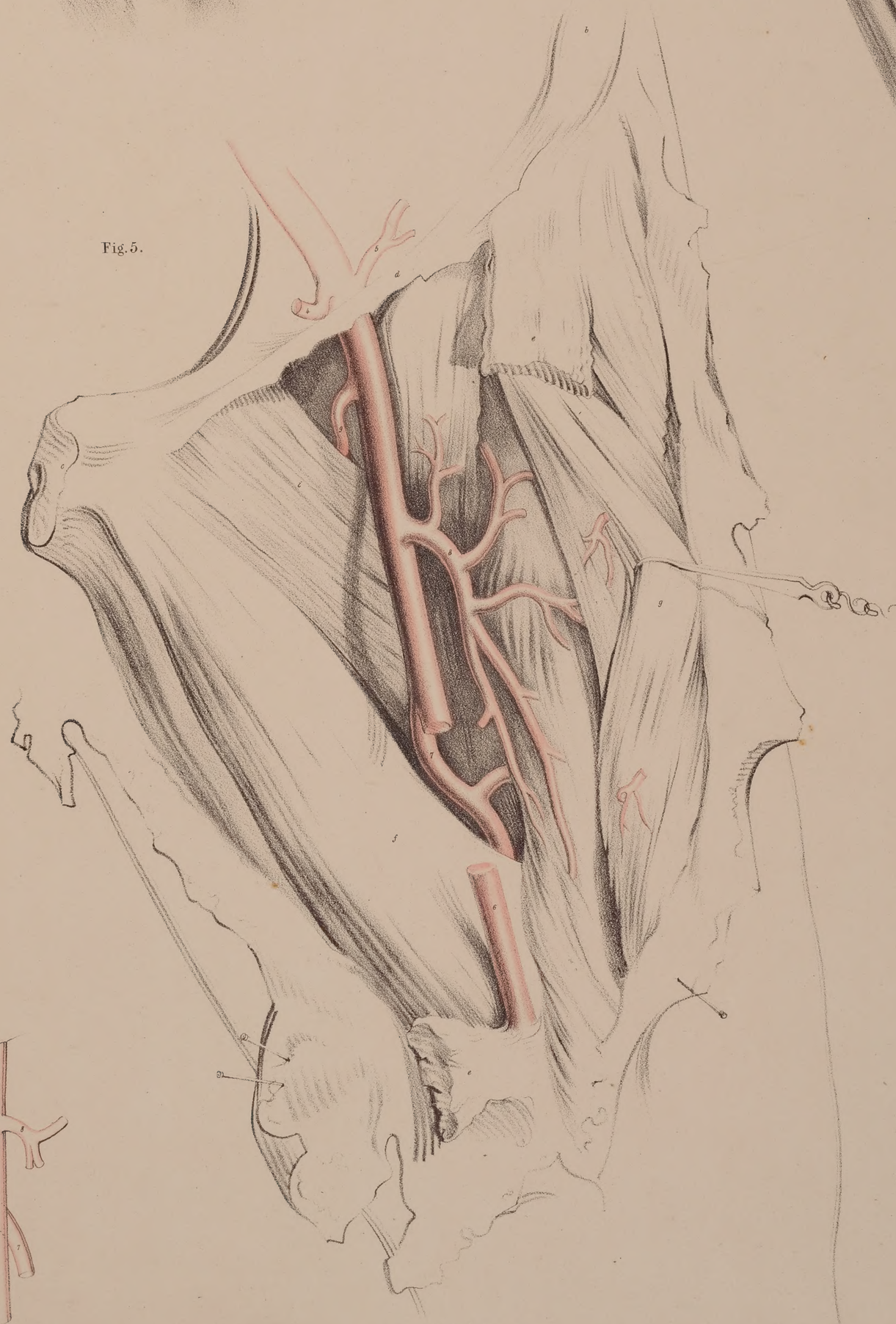

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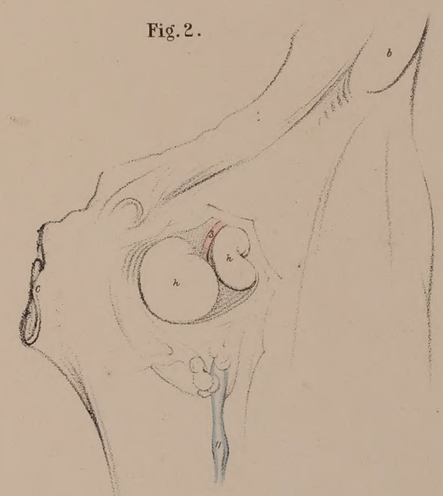

Fig. 1.

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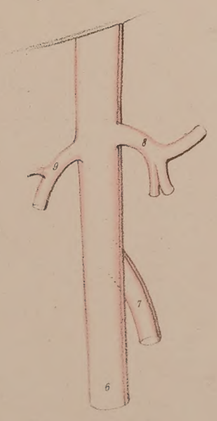

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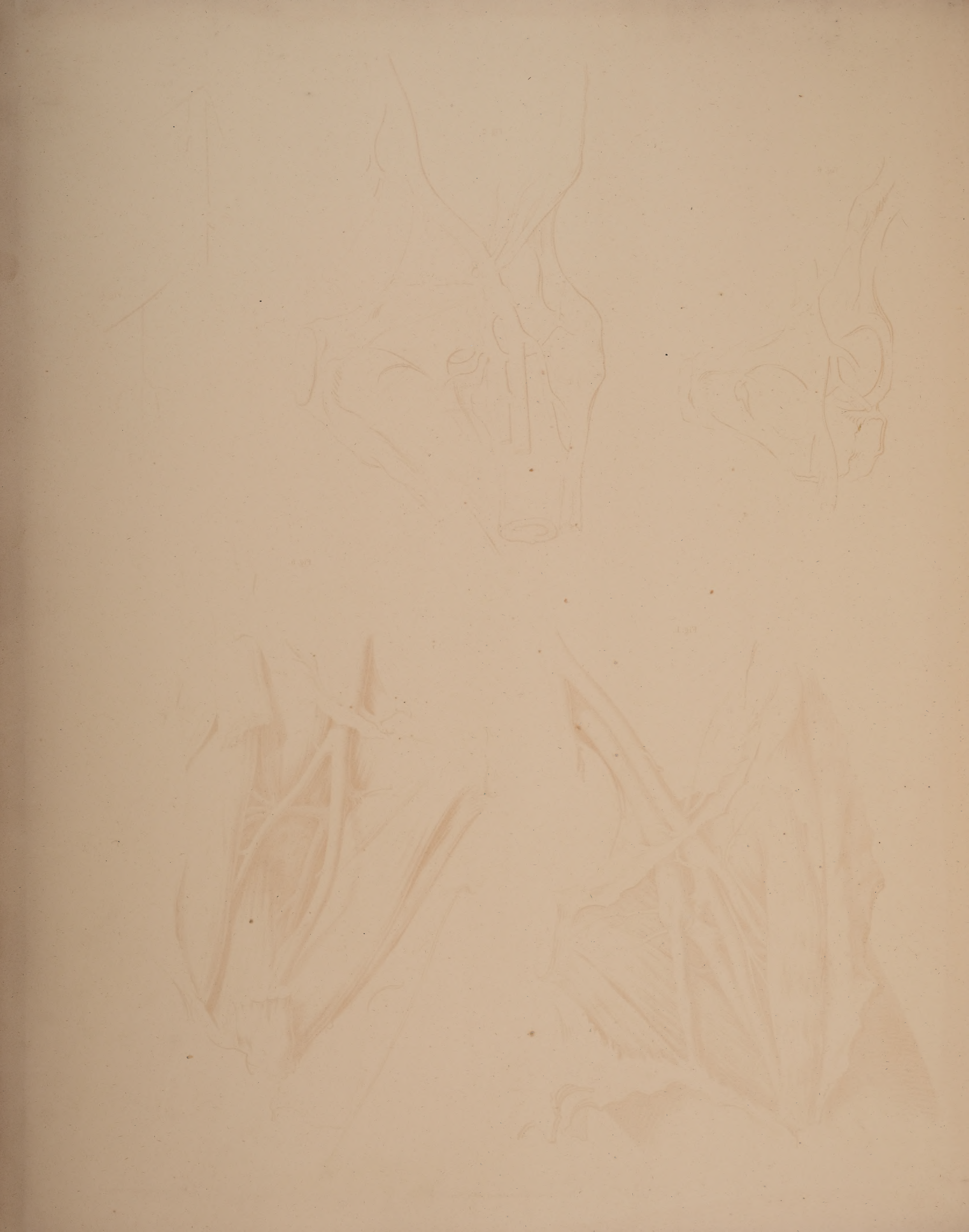

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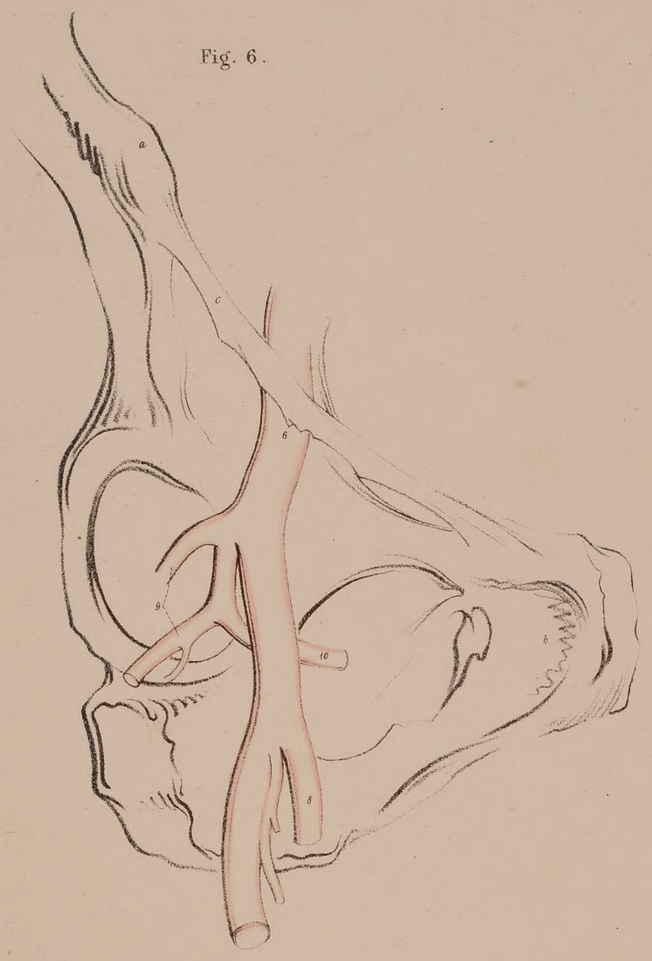

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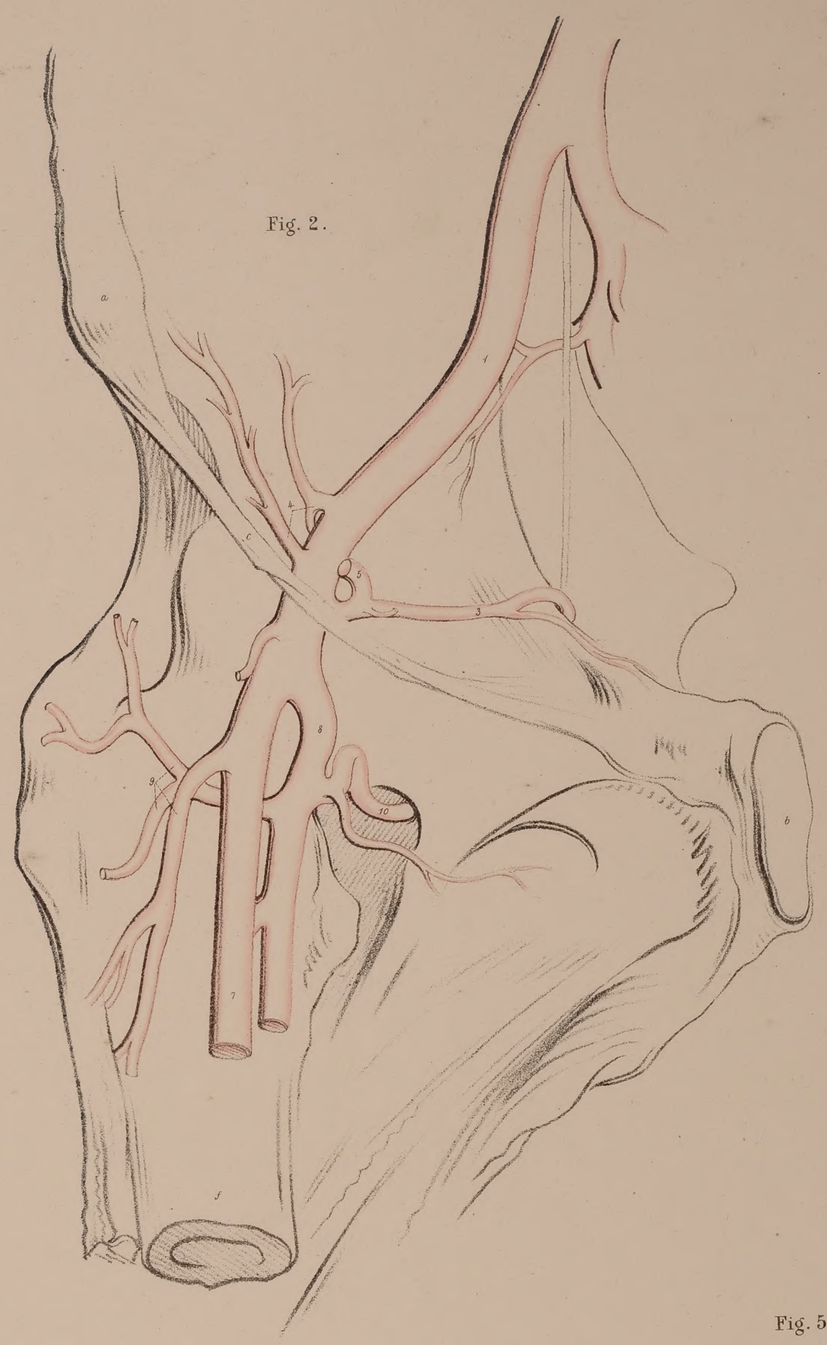

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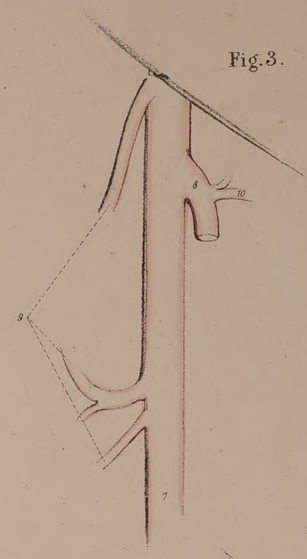

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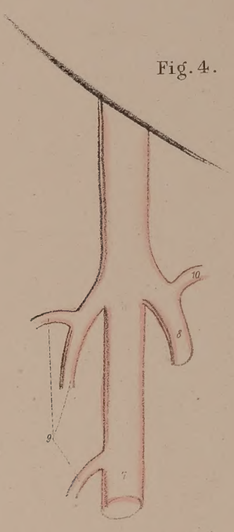

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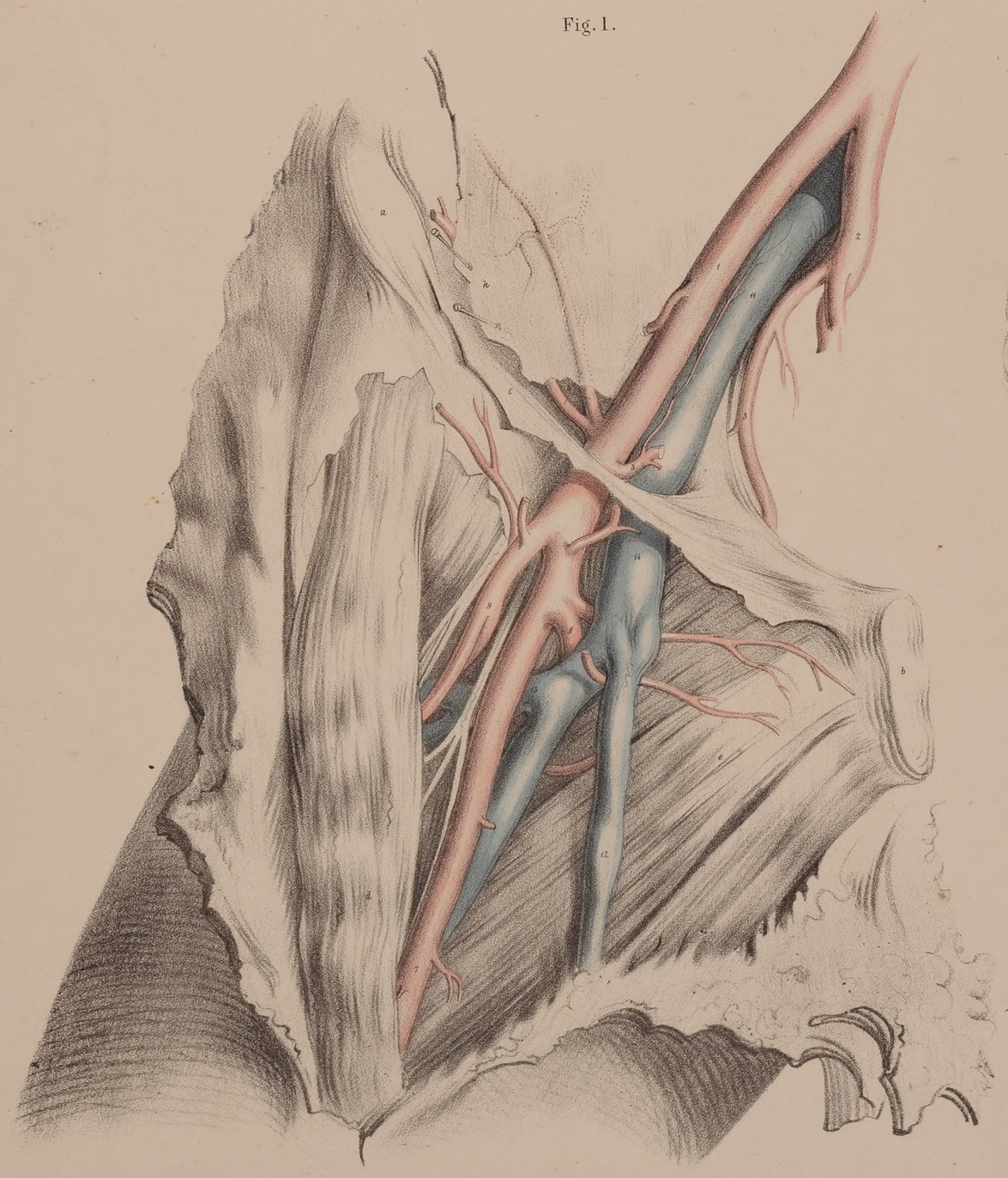

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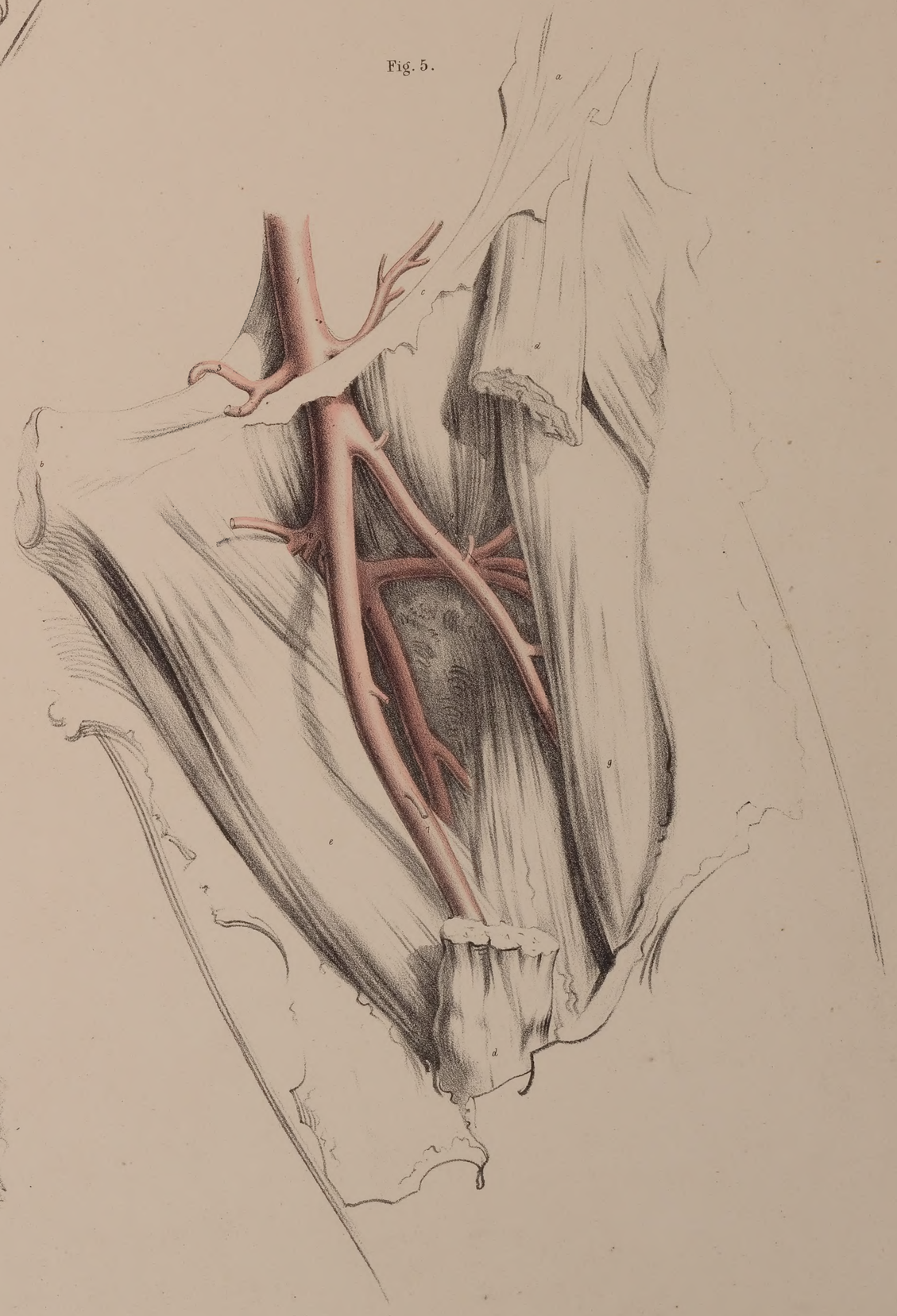

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Fig. 3.

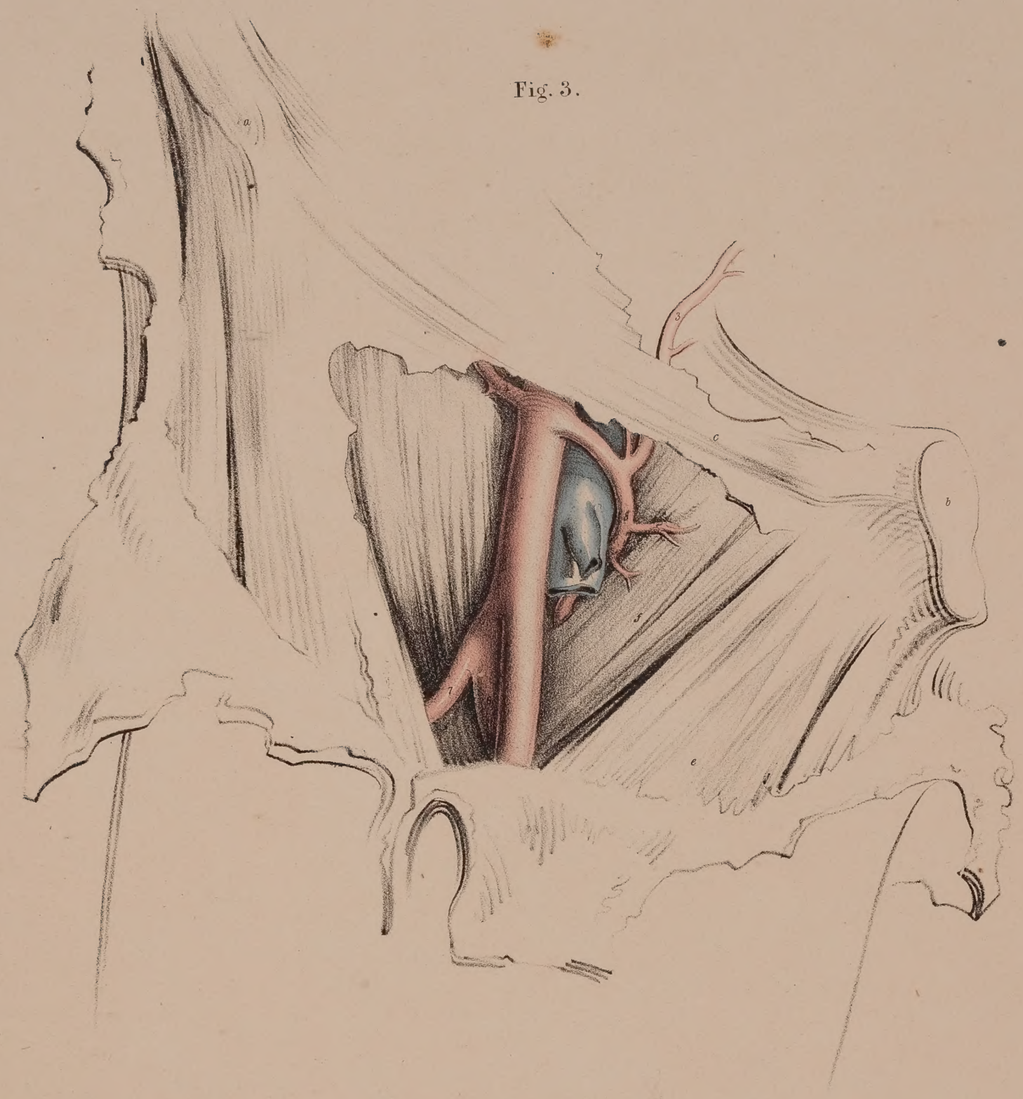

Fig. 5.

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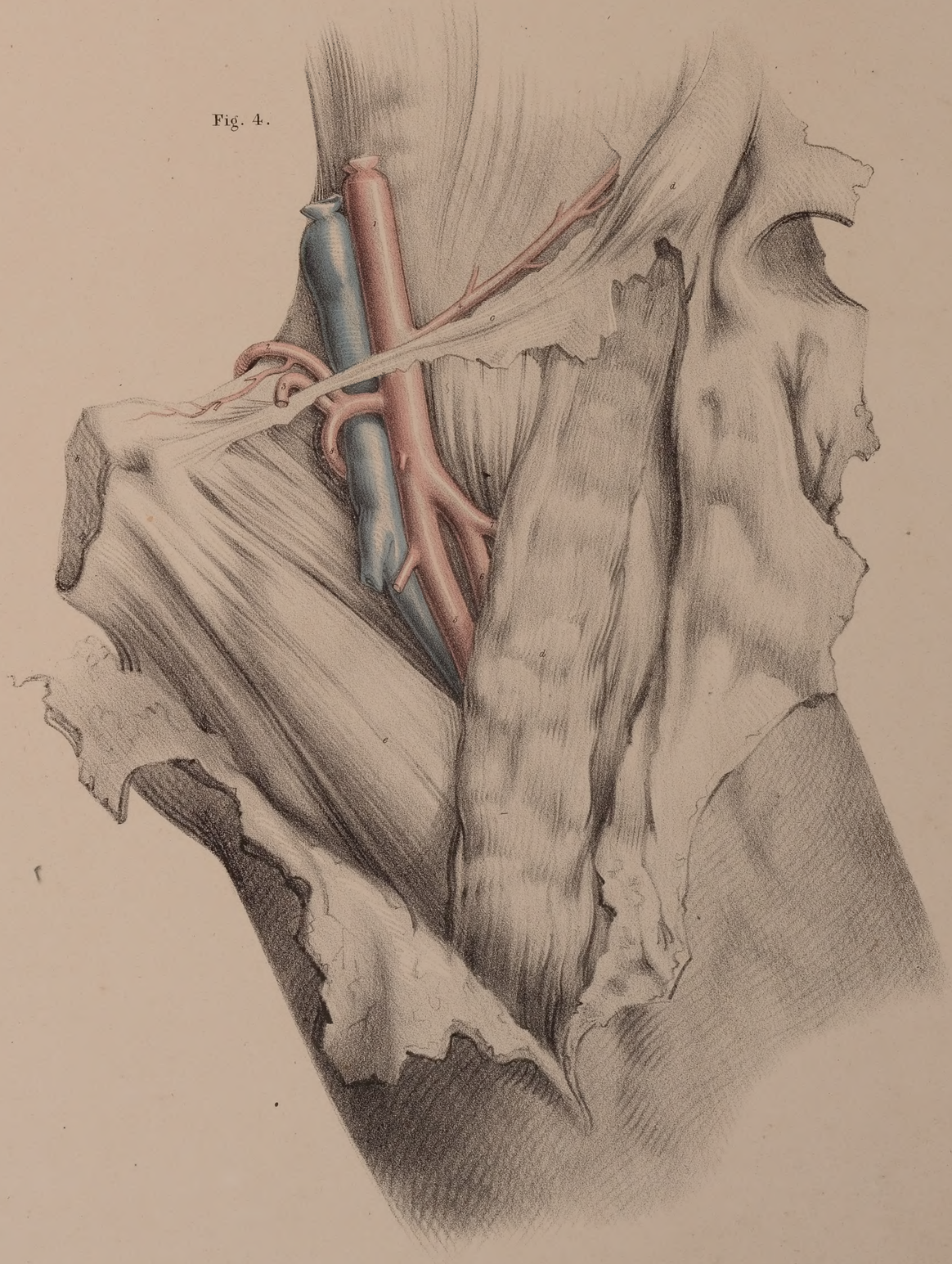

Fig. 2.

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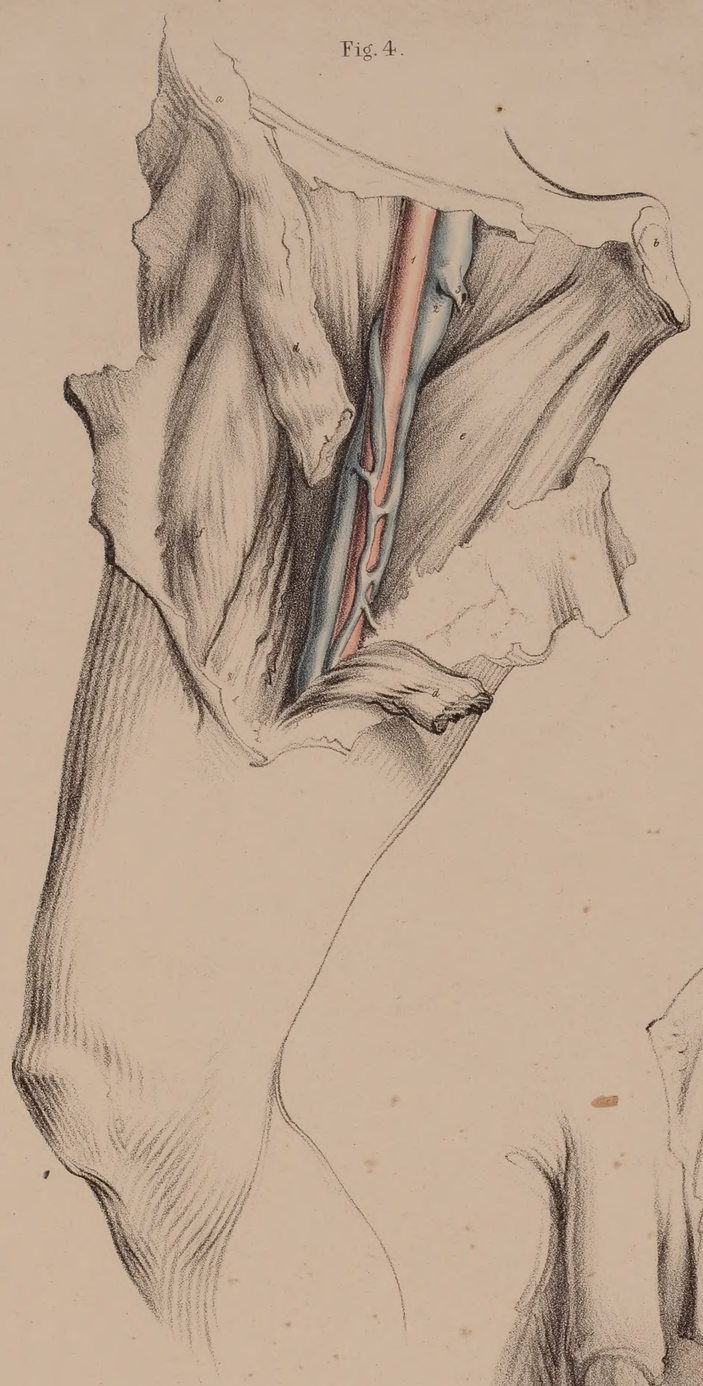

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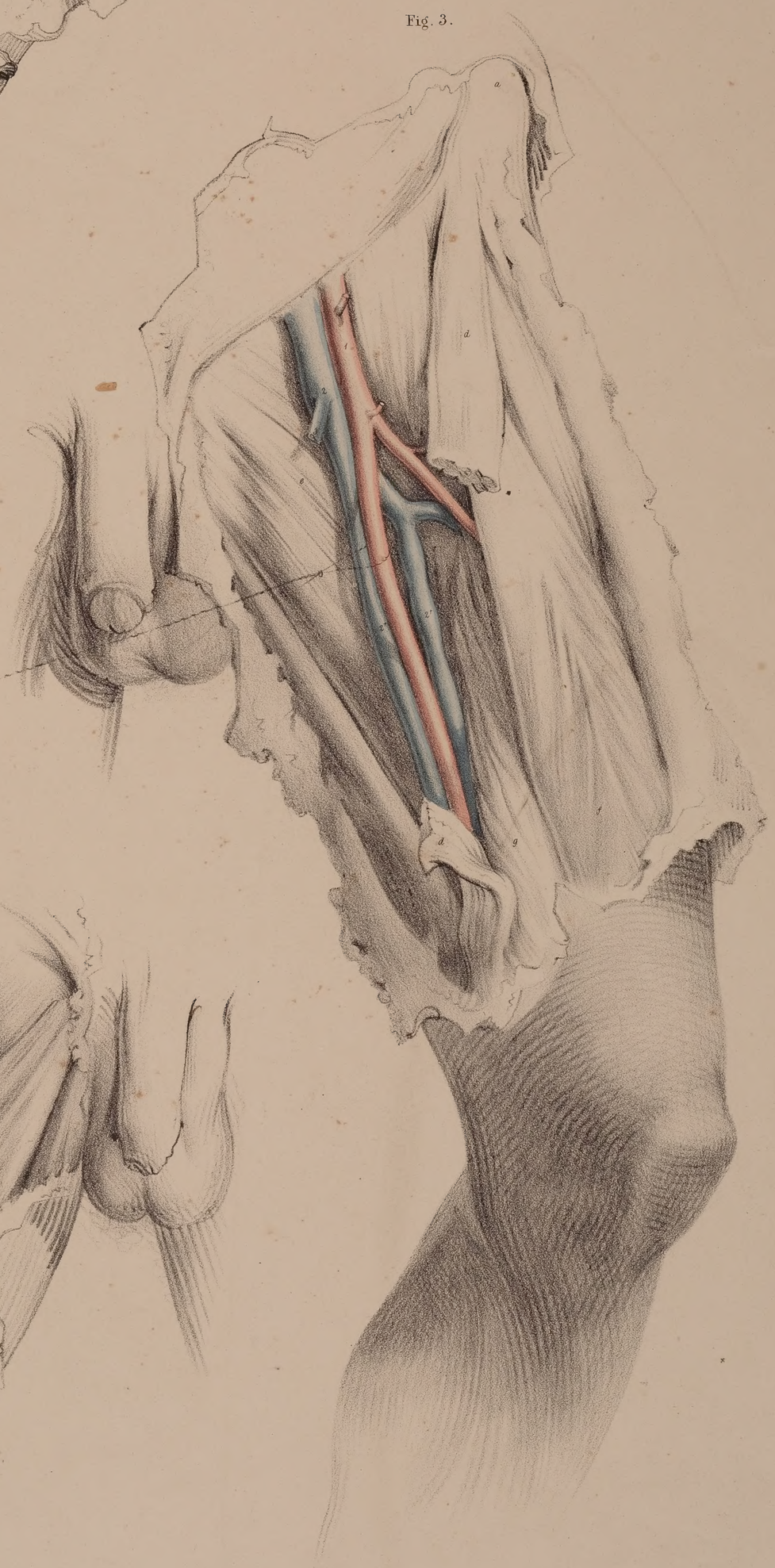

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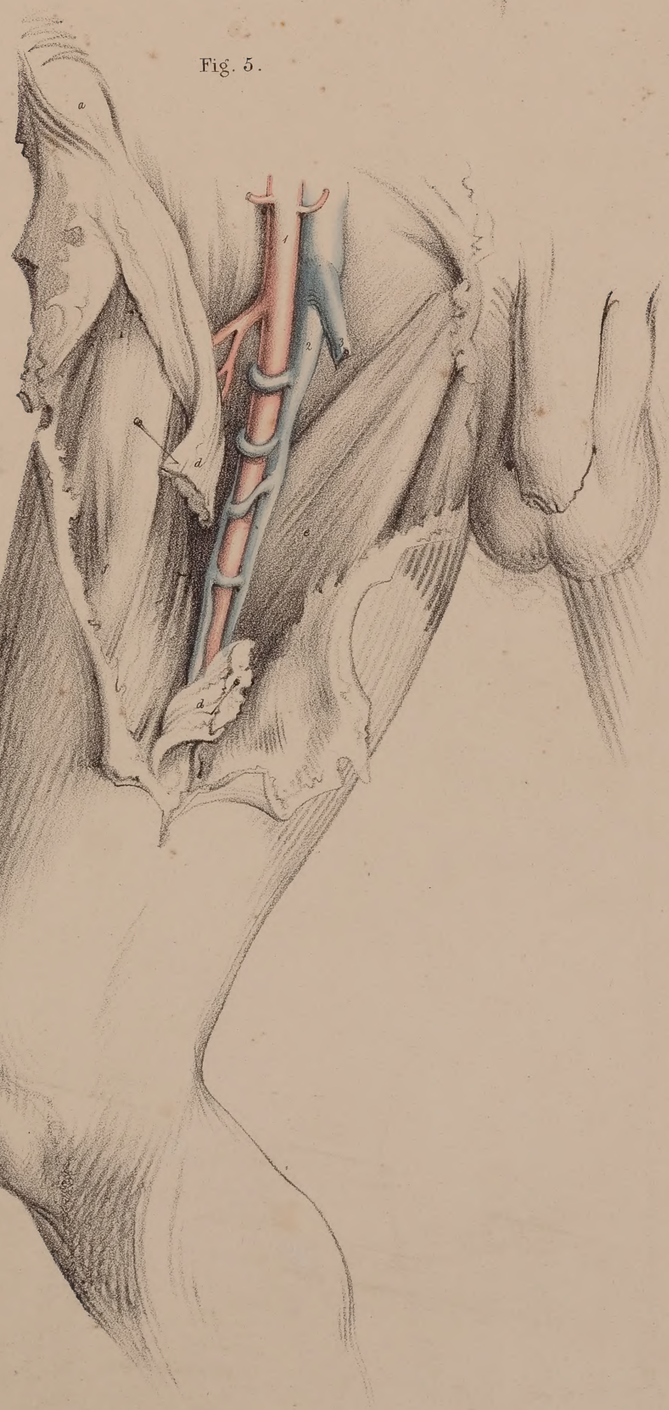

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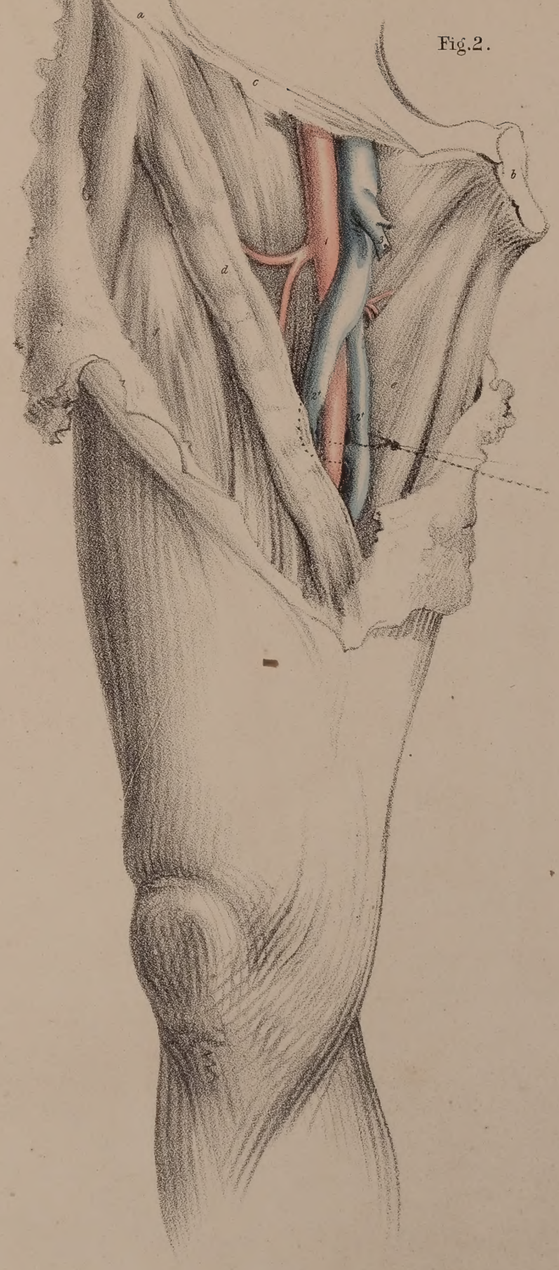

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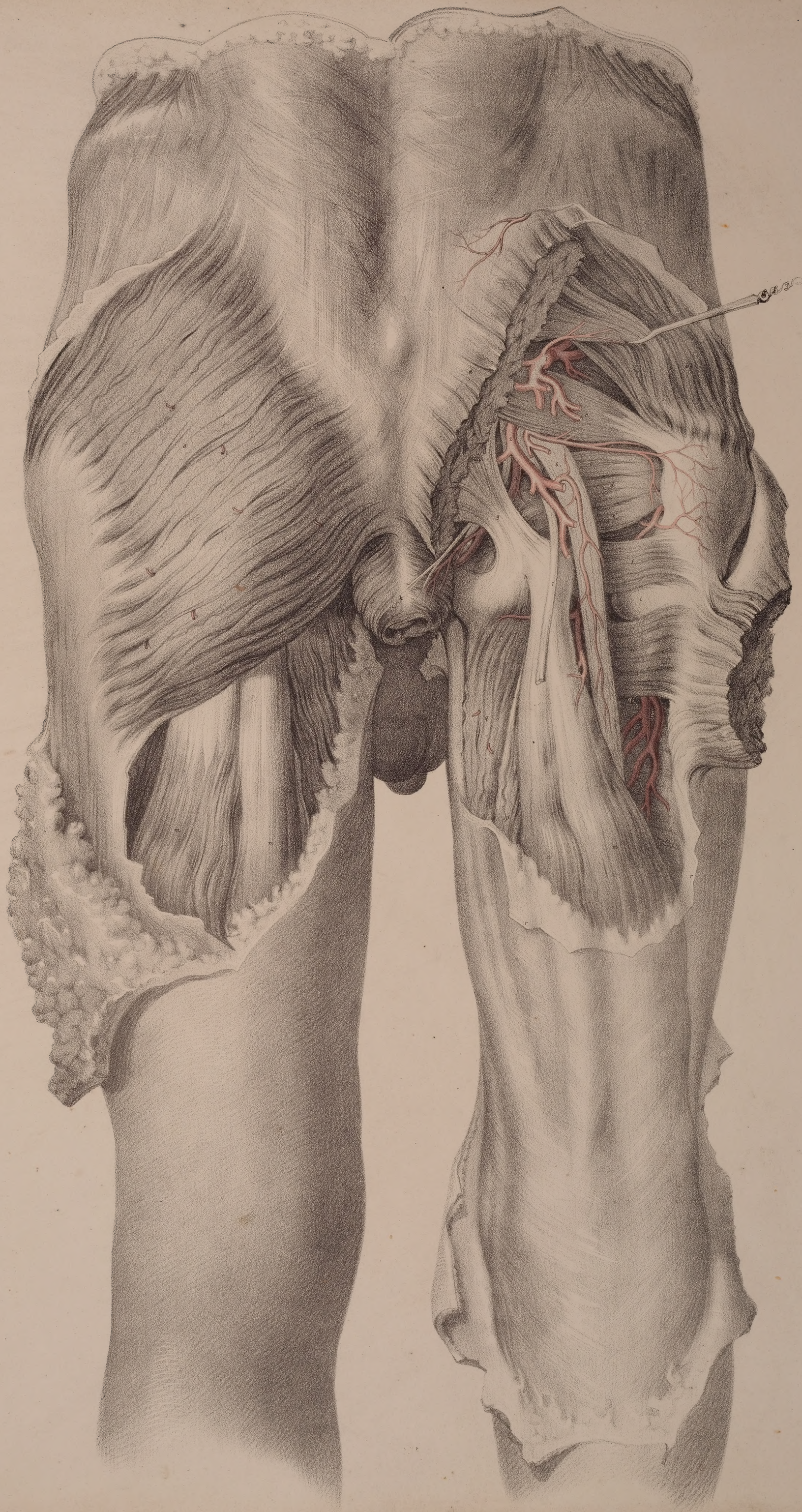

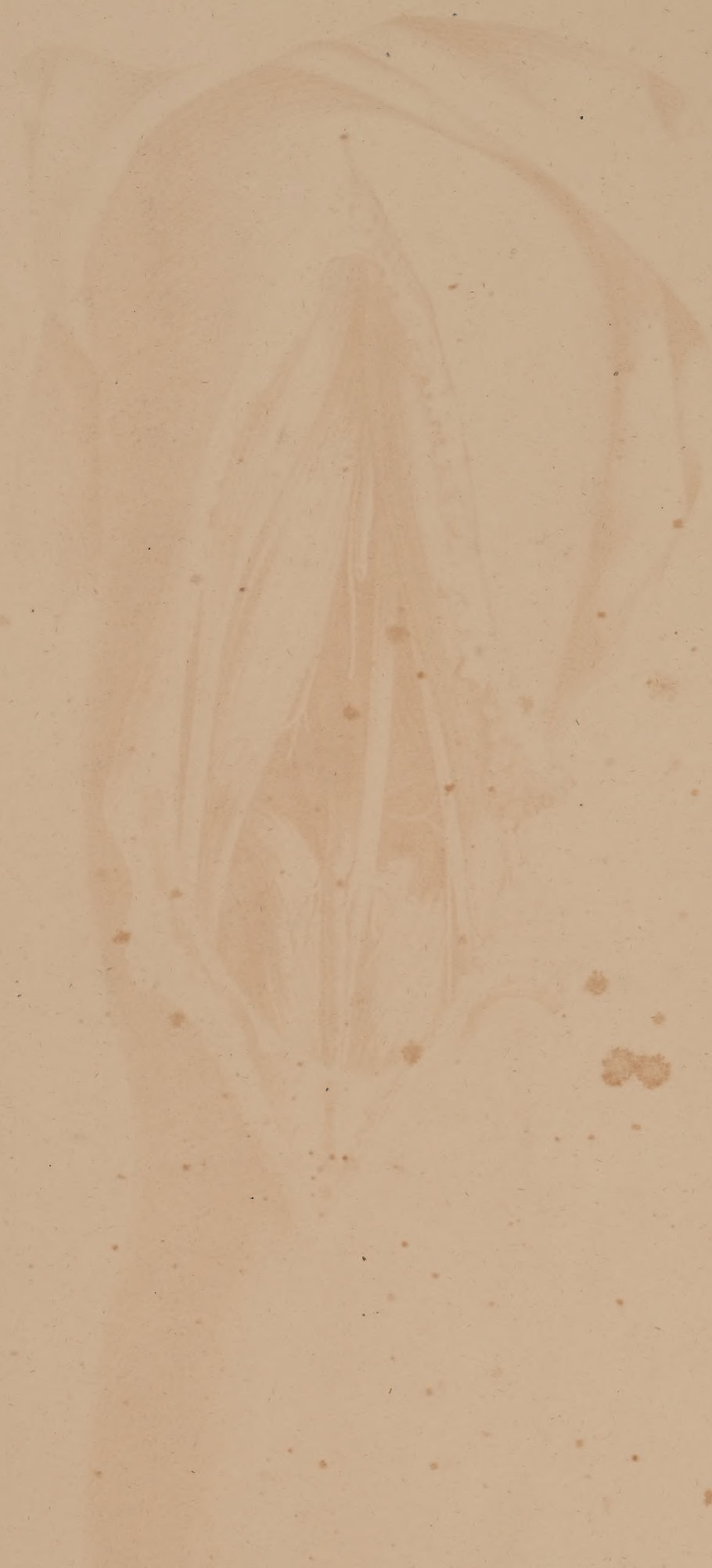

Pl. 78.

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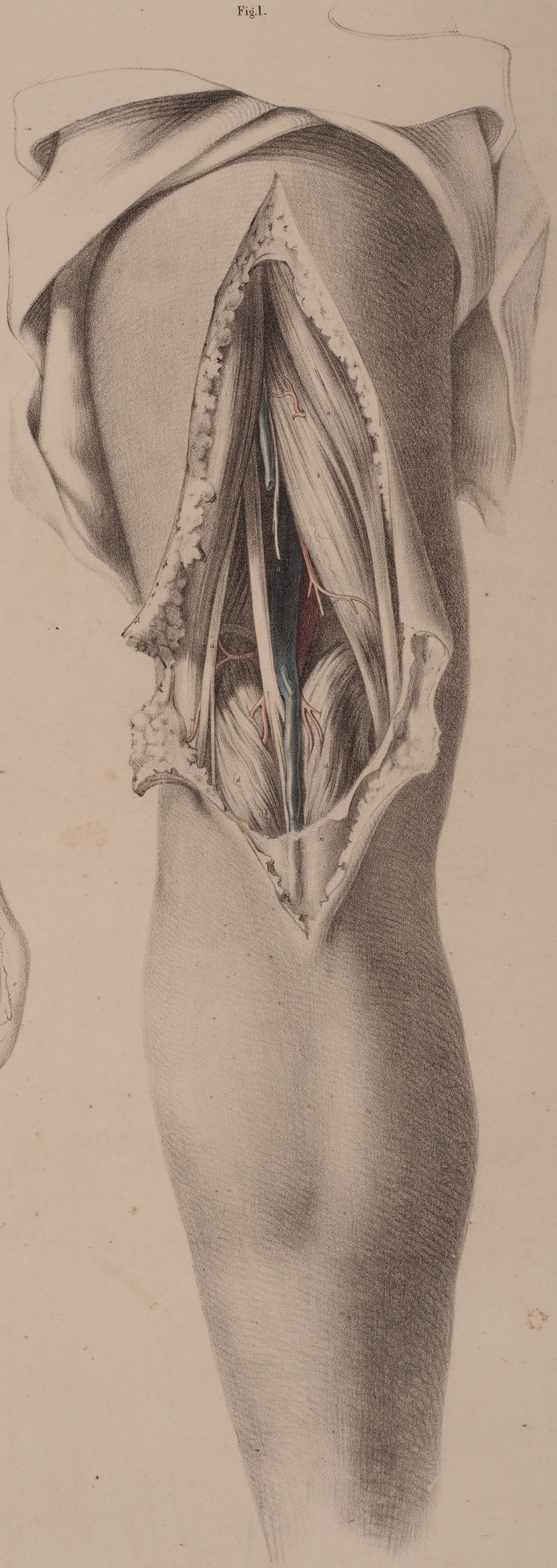

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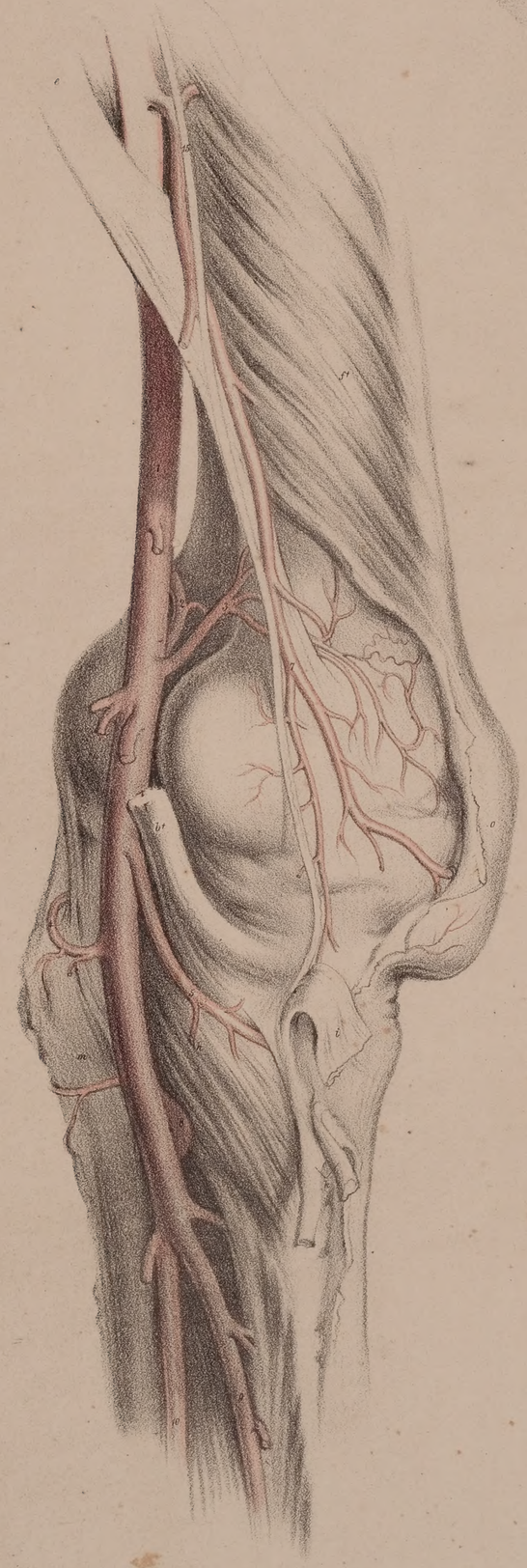

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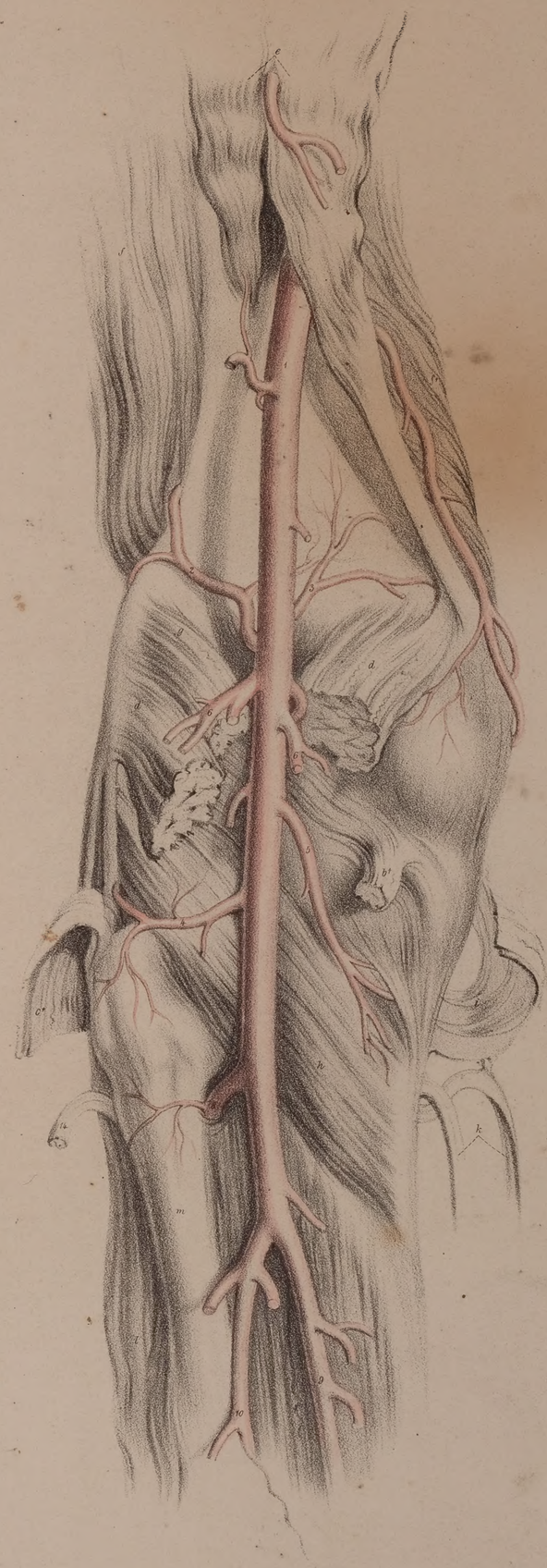

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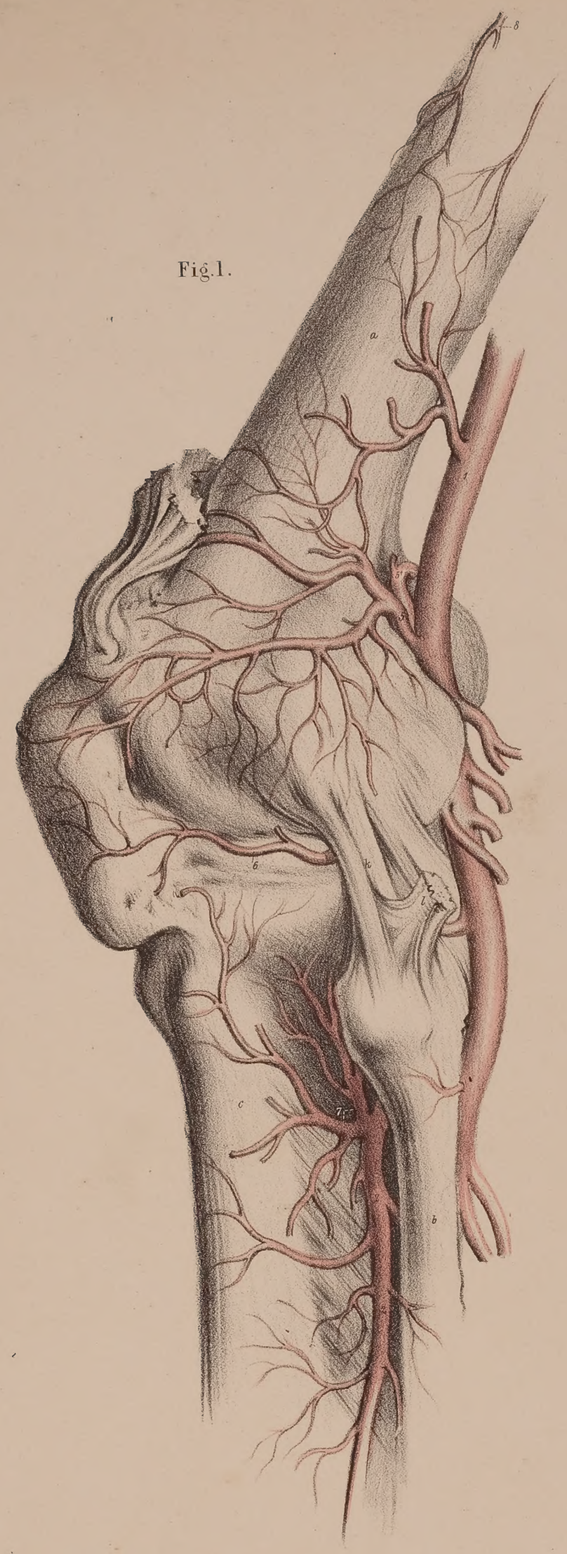

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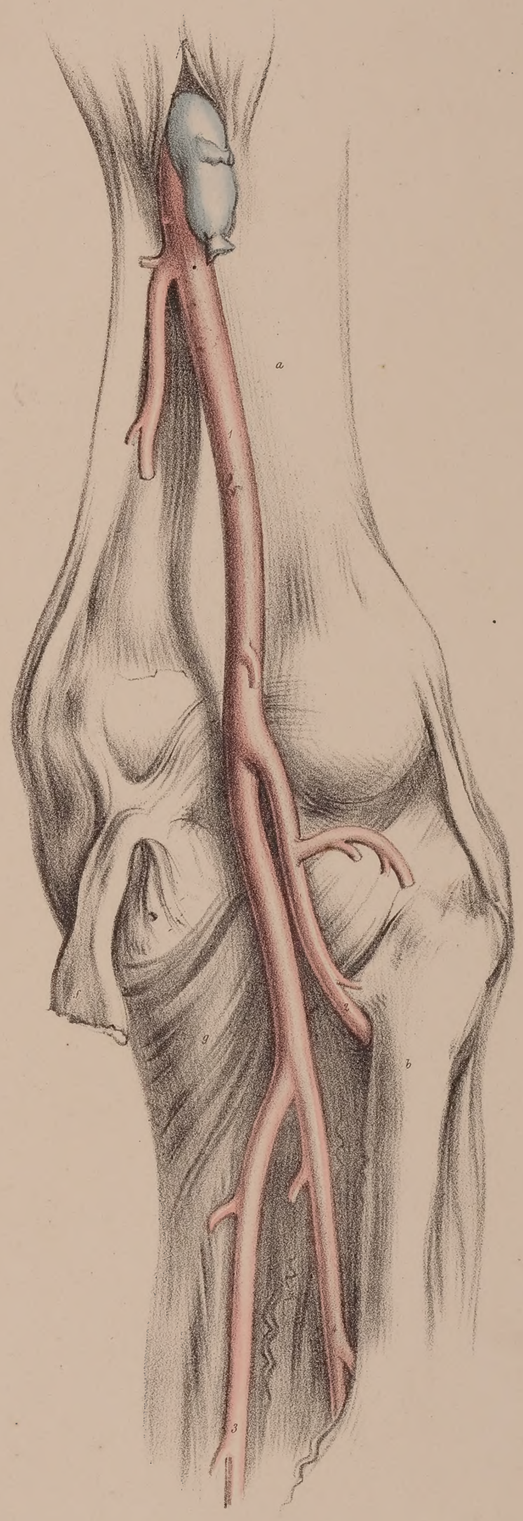

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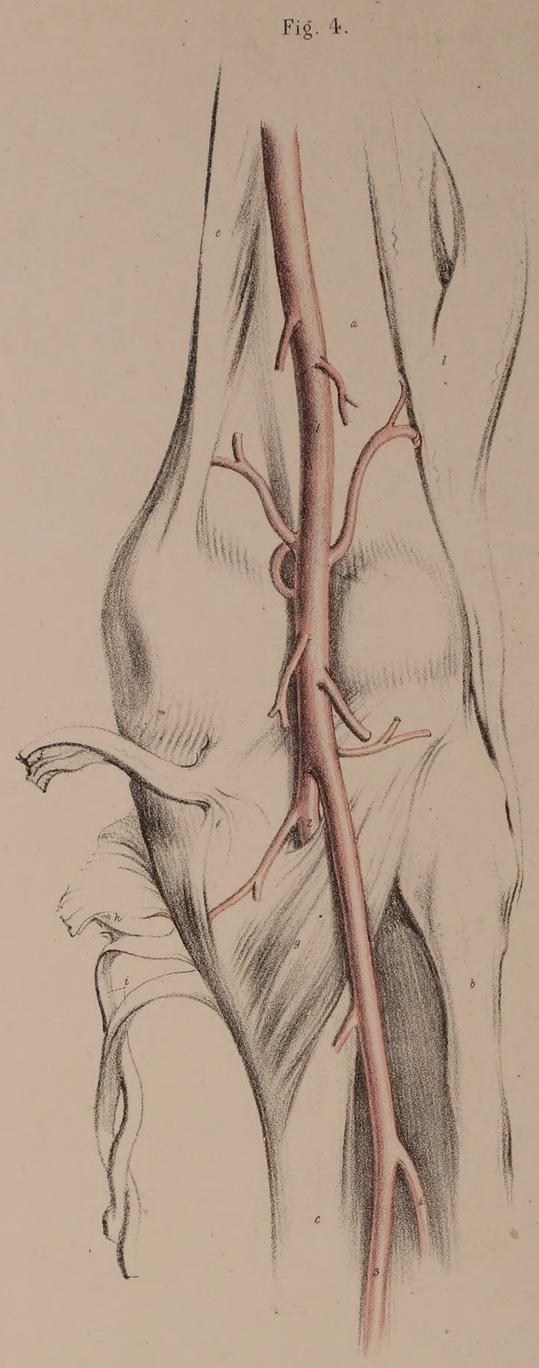

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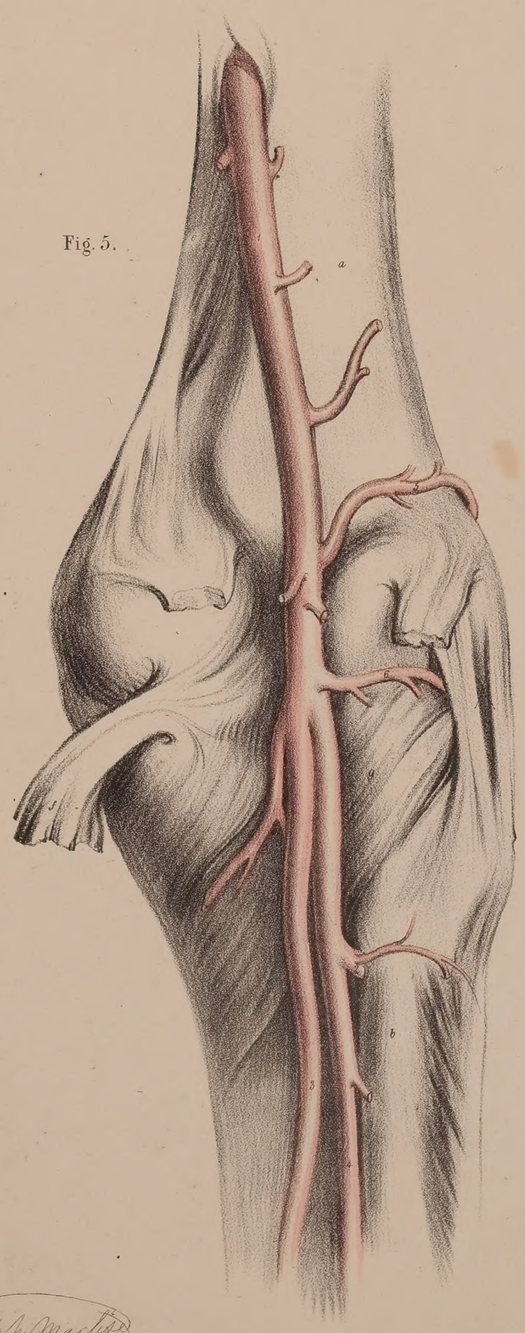

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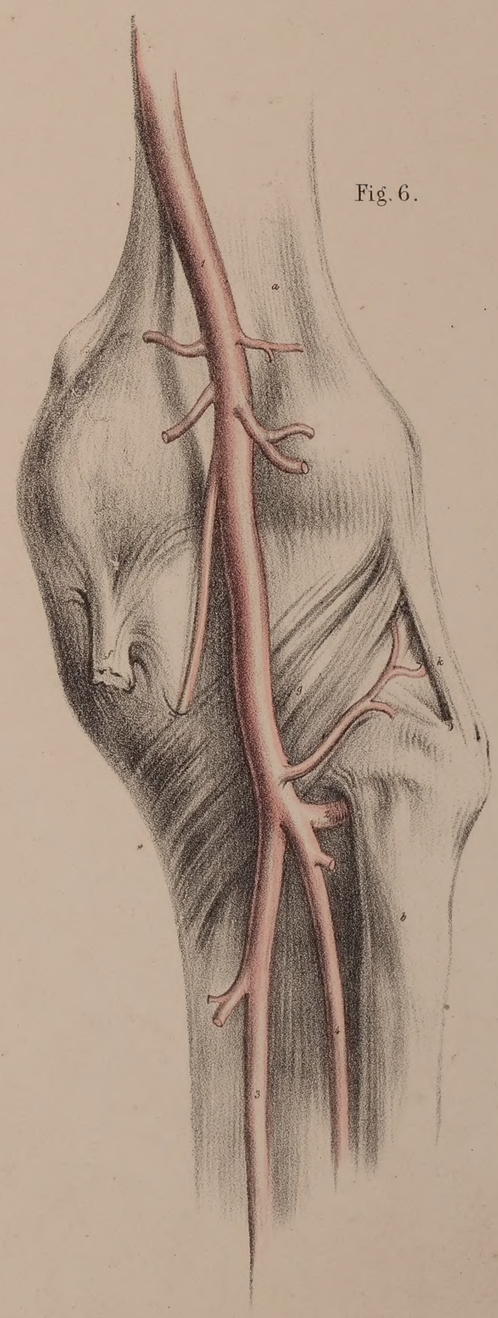

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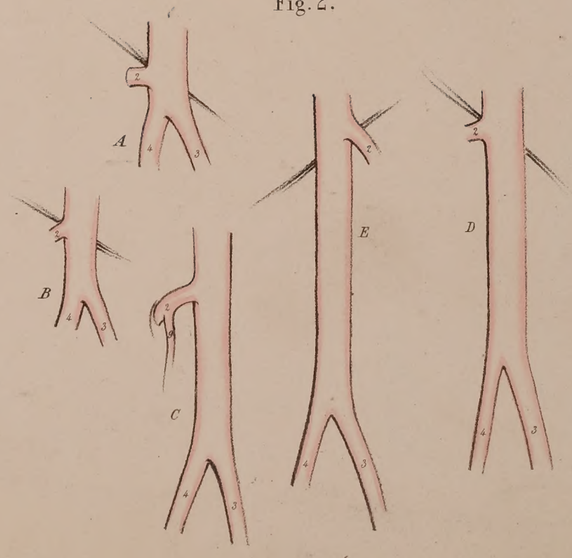

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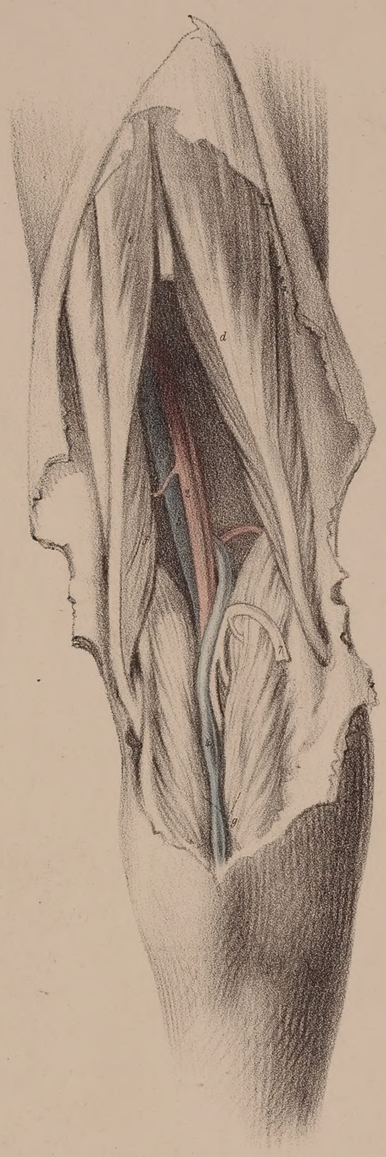
Fig. 1.



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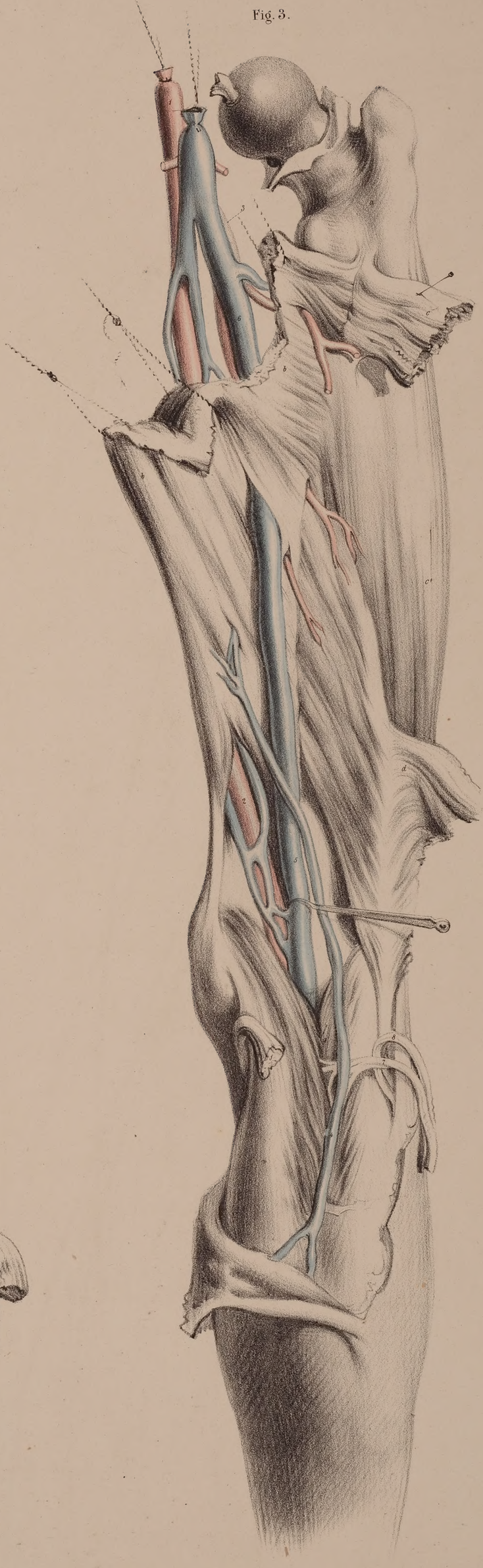

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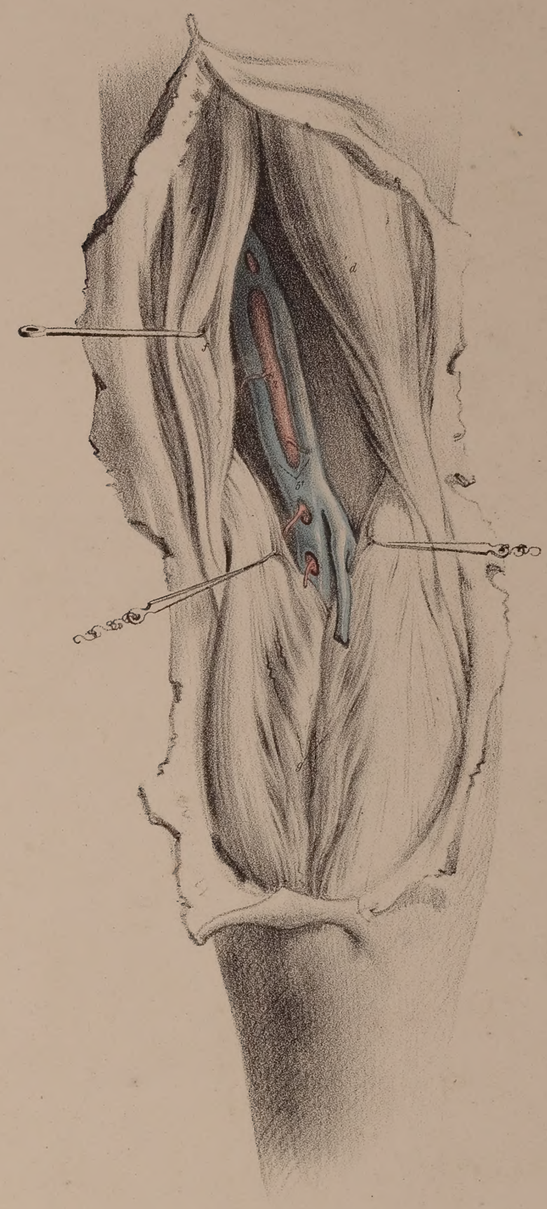

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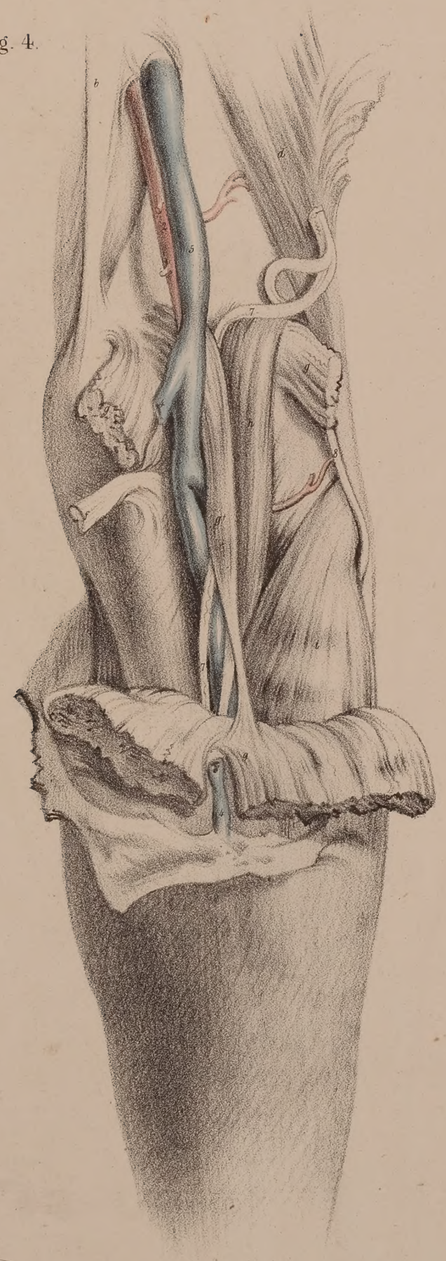

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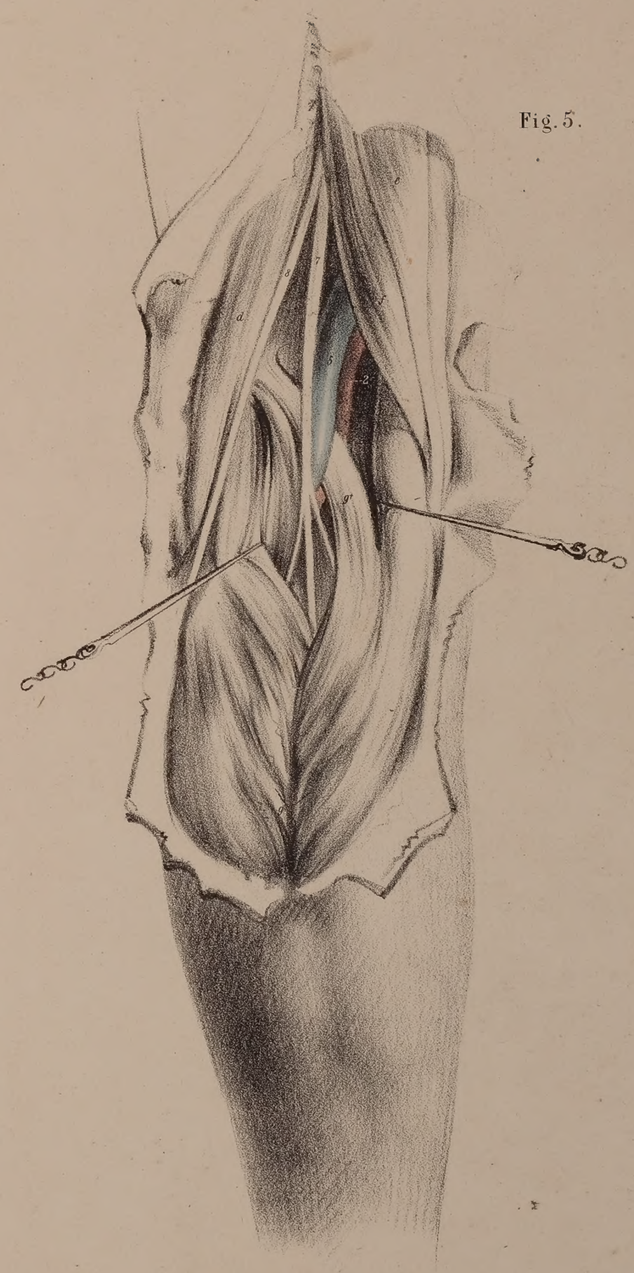

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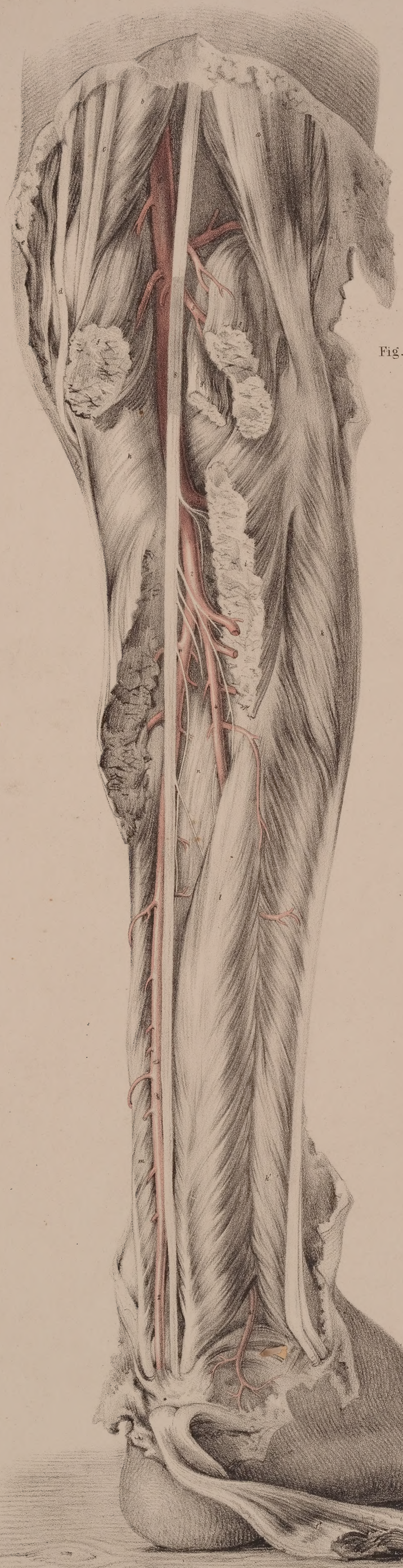

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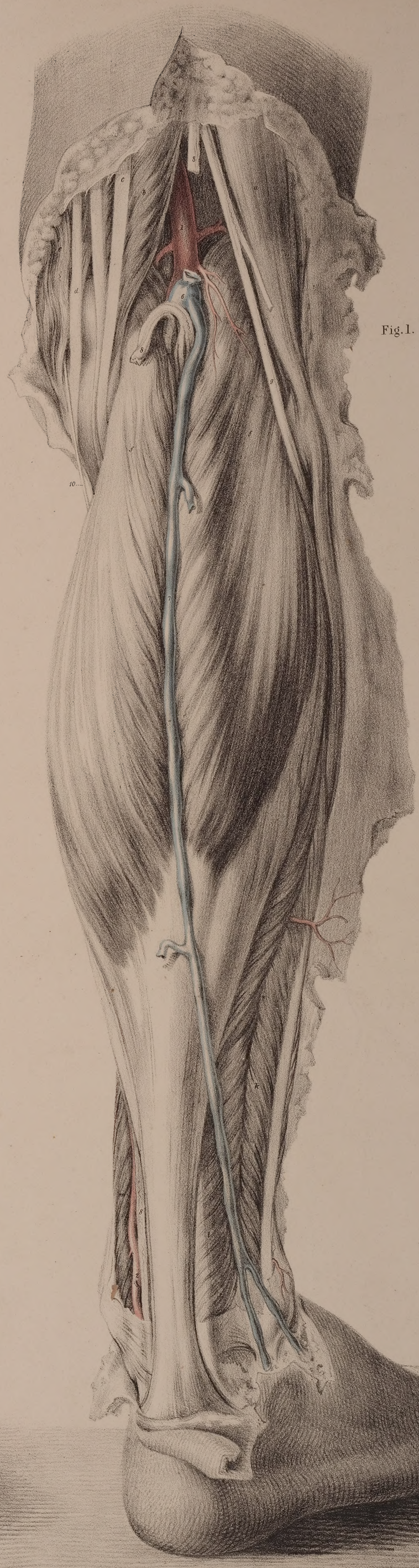

Fig. 1.

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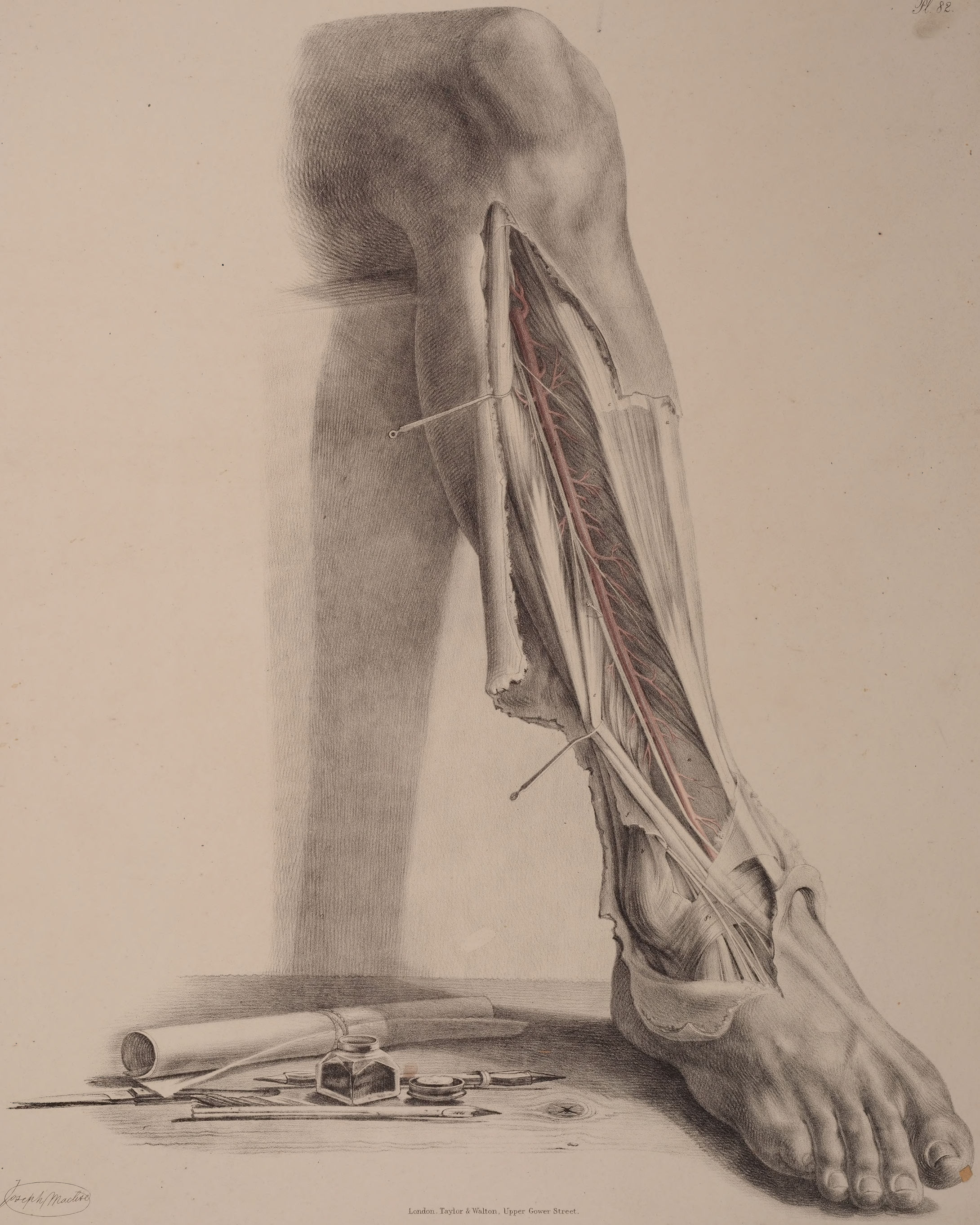

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Fig. 3.

Fig. 2.

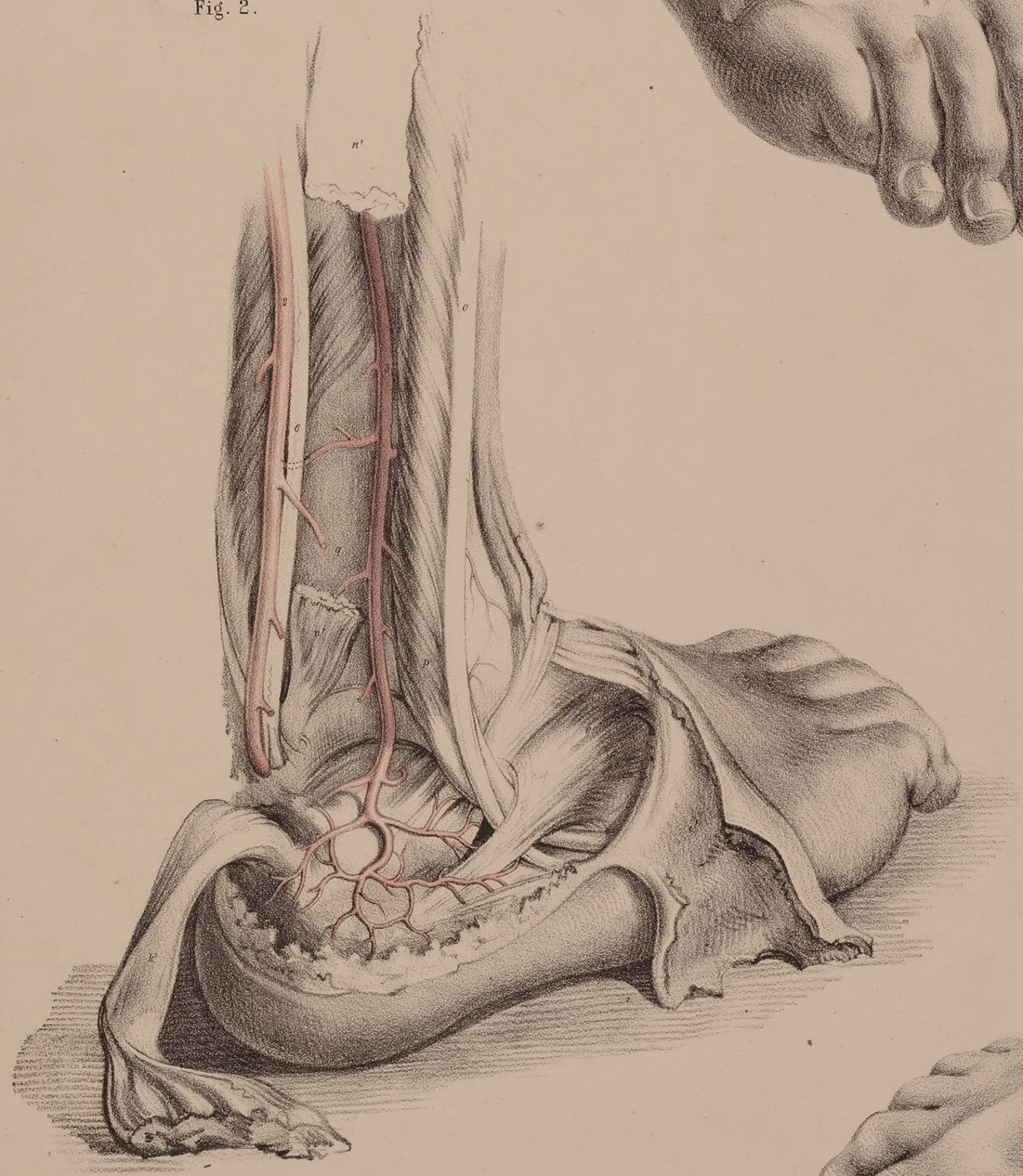

Fig. 1.

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Fig. 3.

Fig. 4.

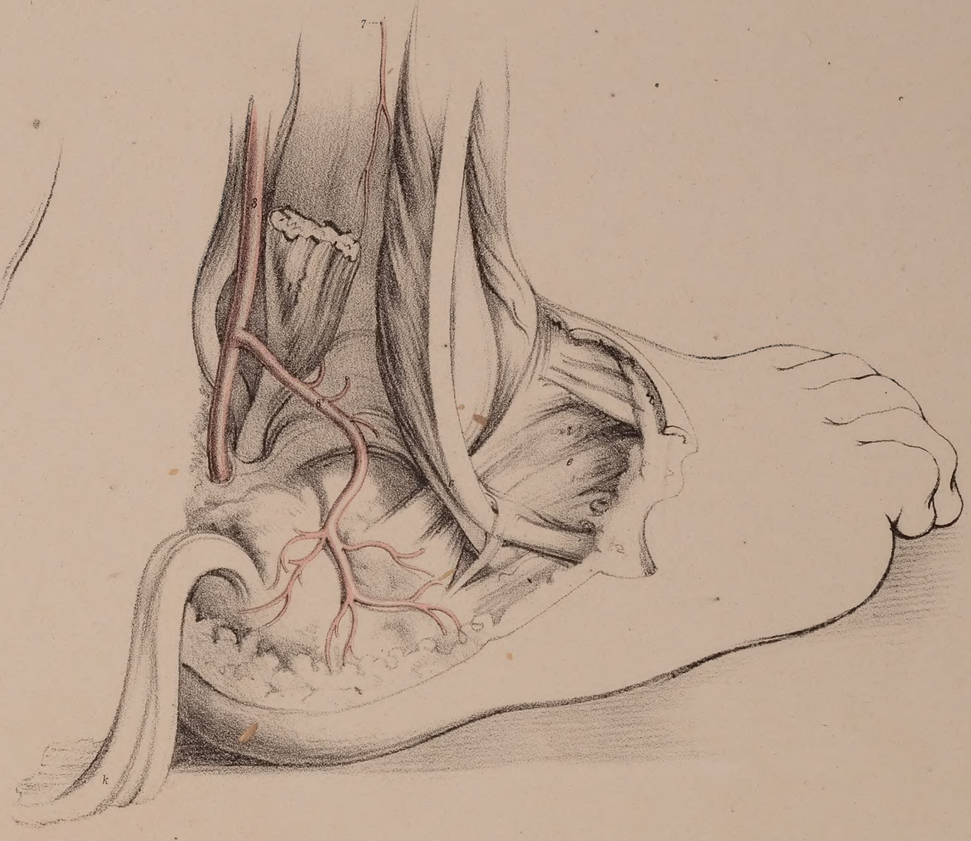

Fig. 2.

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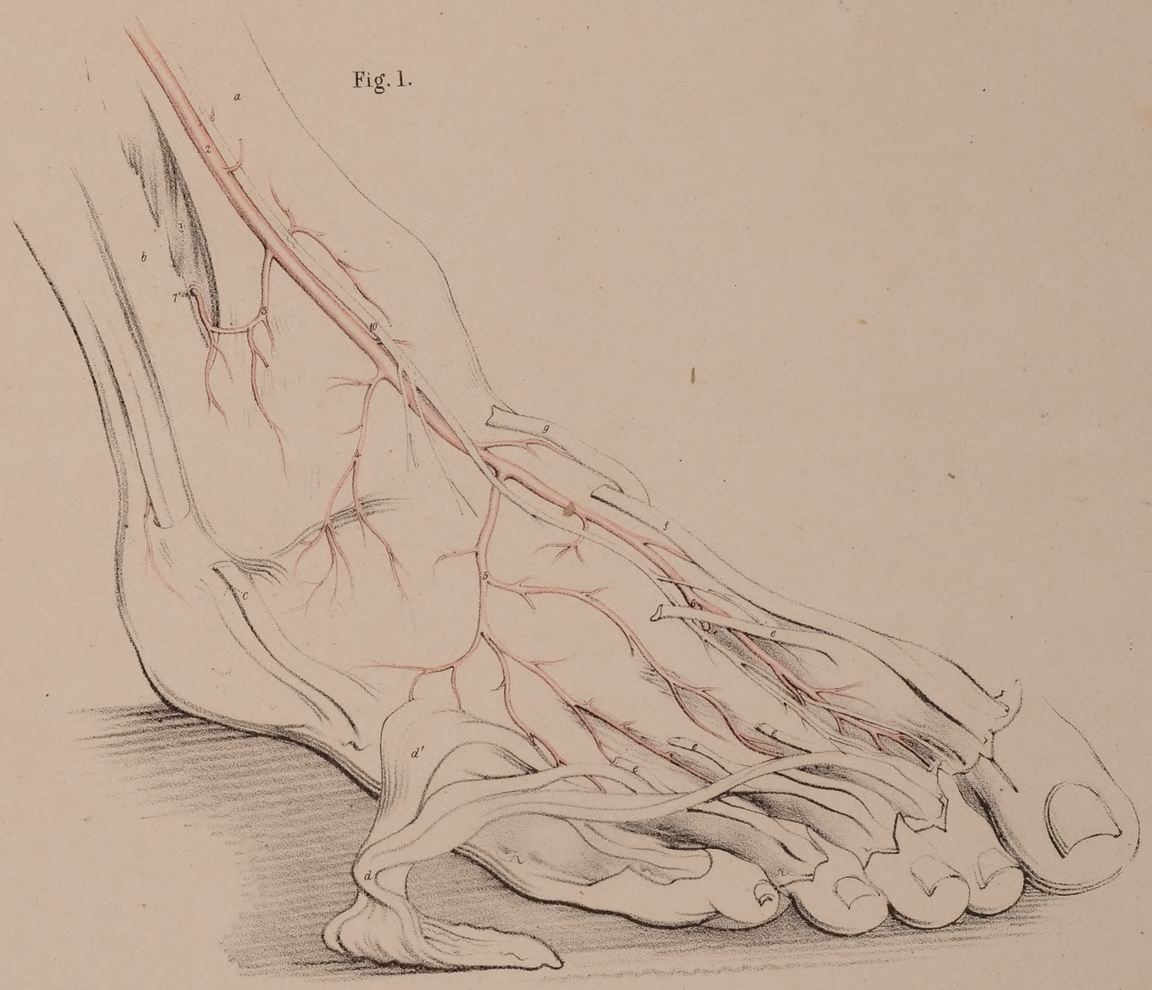

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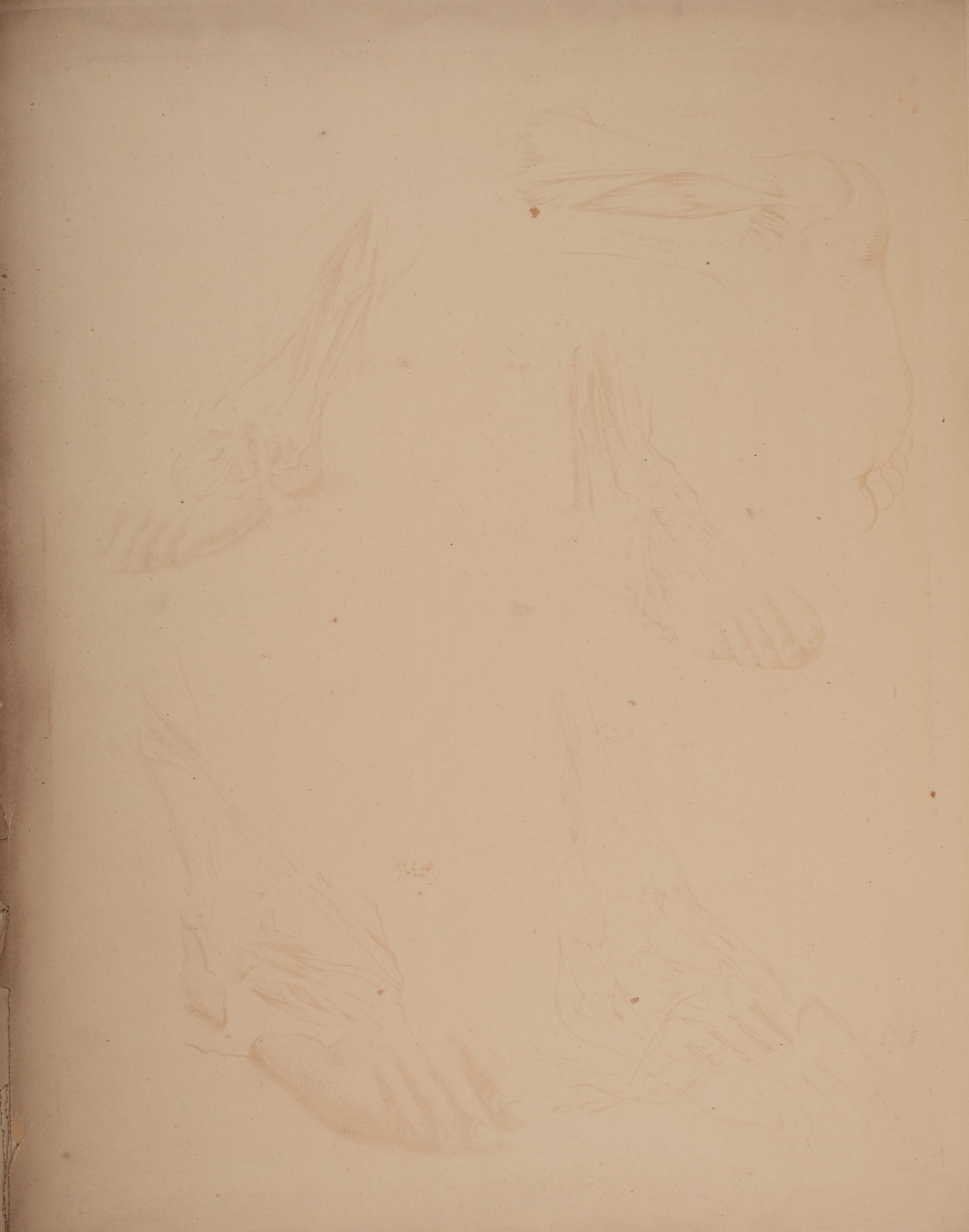

Fig. 1.

Fig. 2.

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Fig. 4.

Fig. 5.

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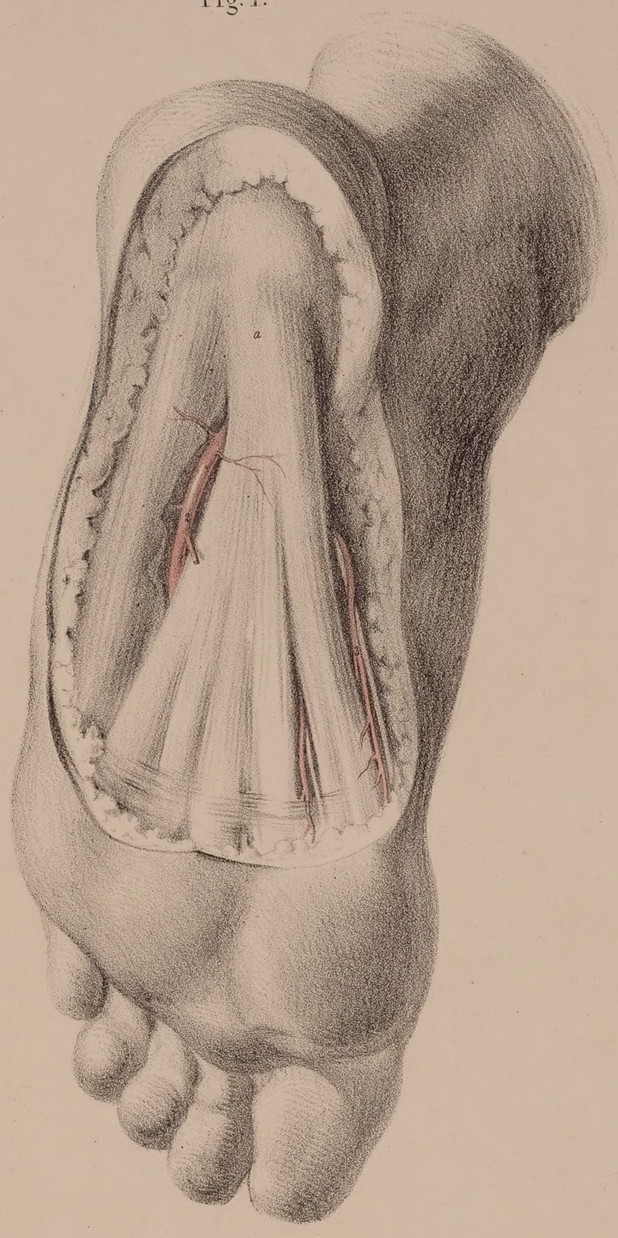
Fig. 1.



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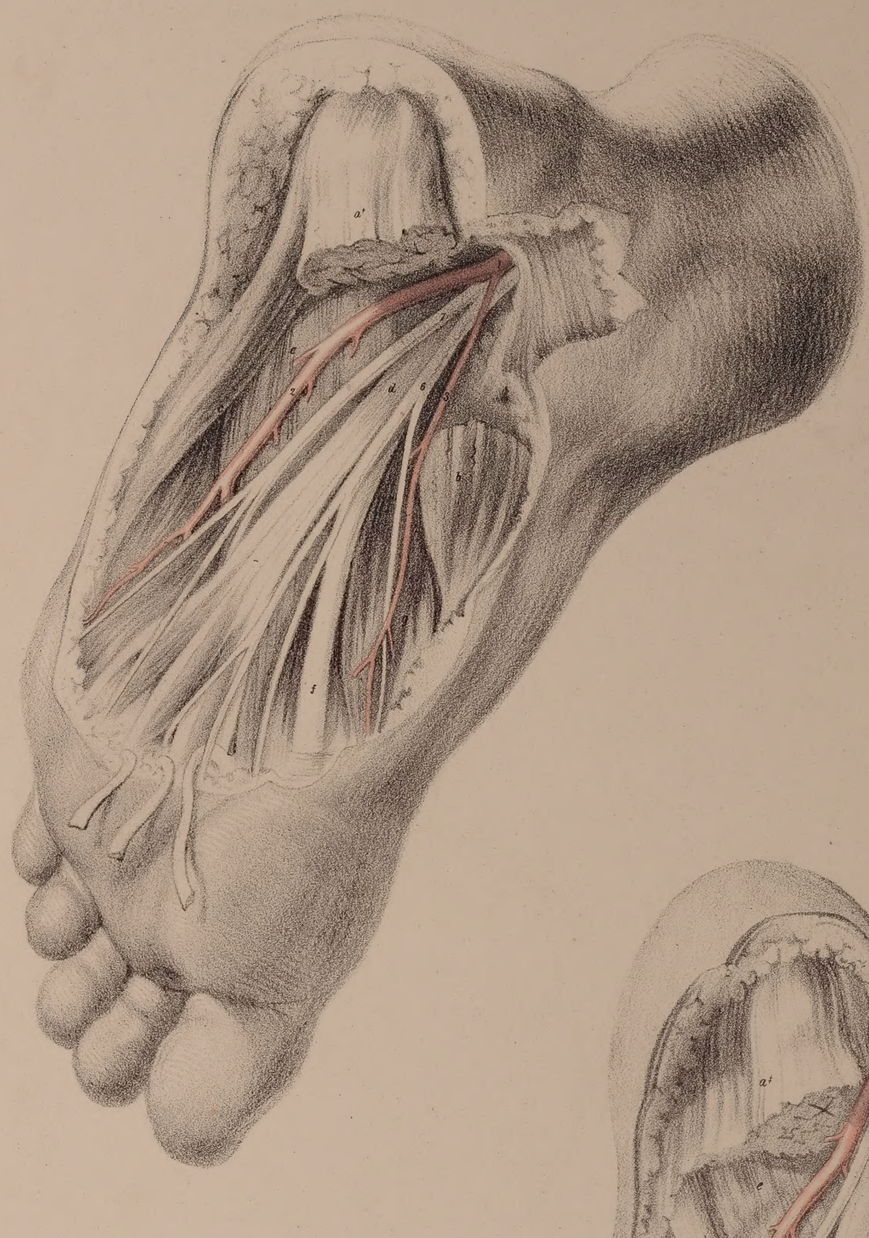

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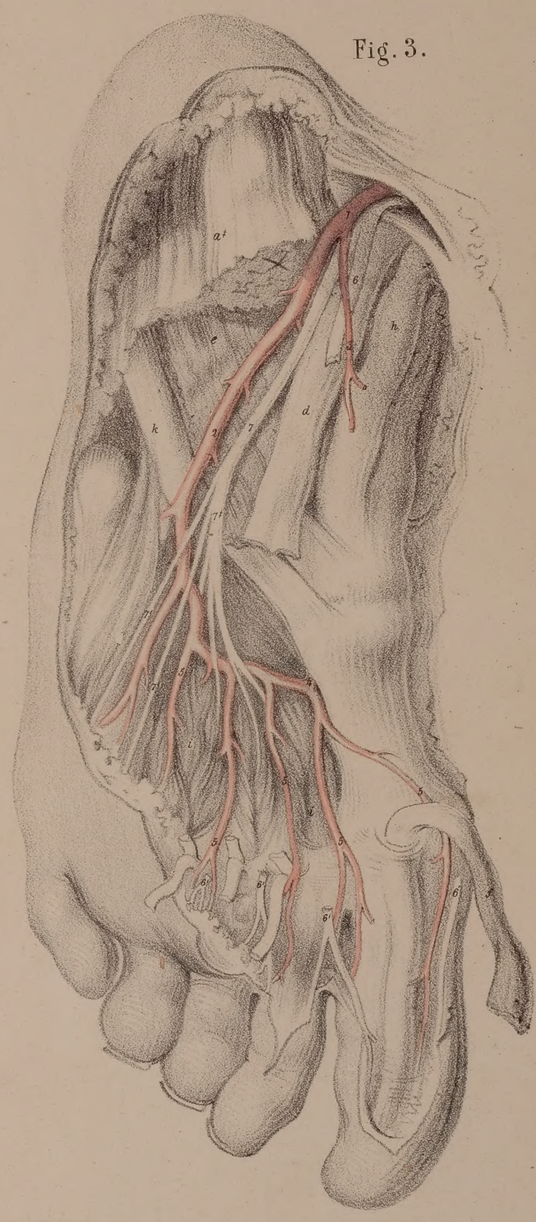

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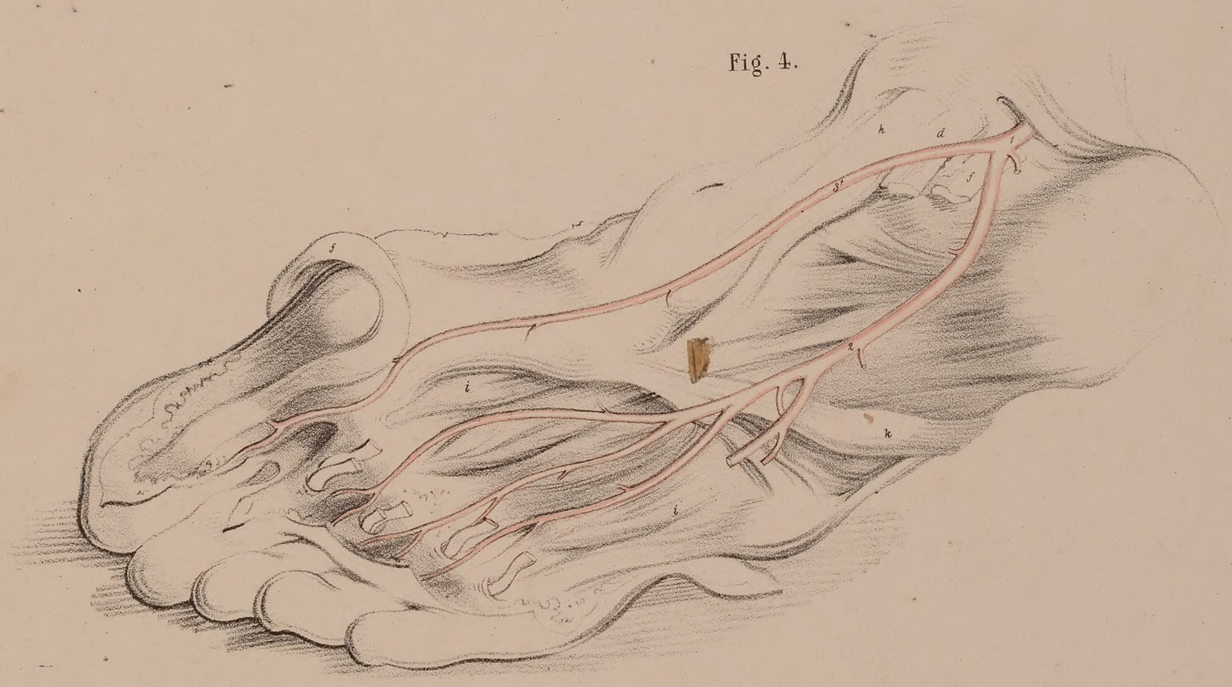

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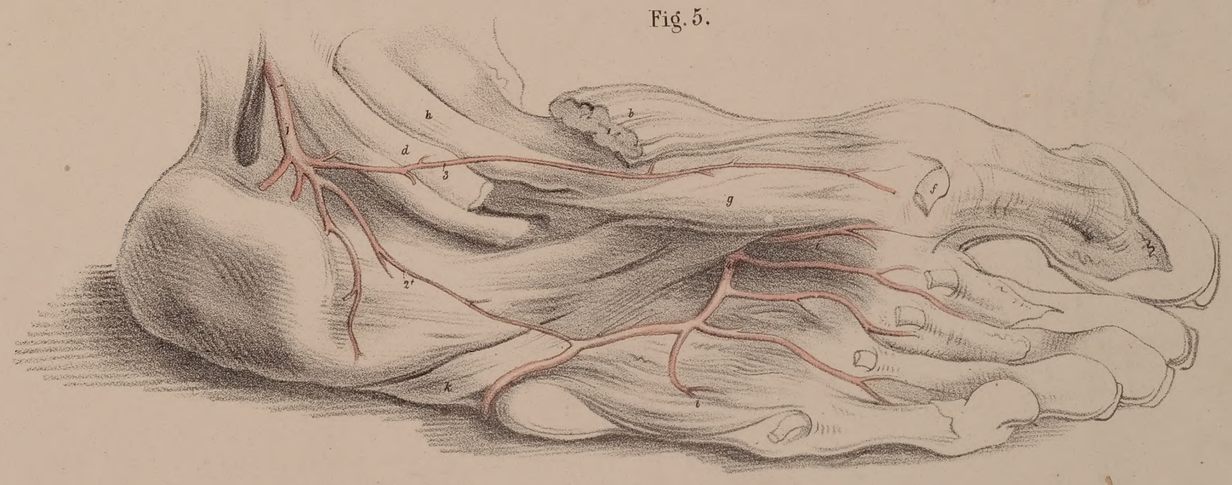

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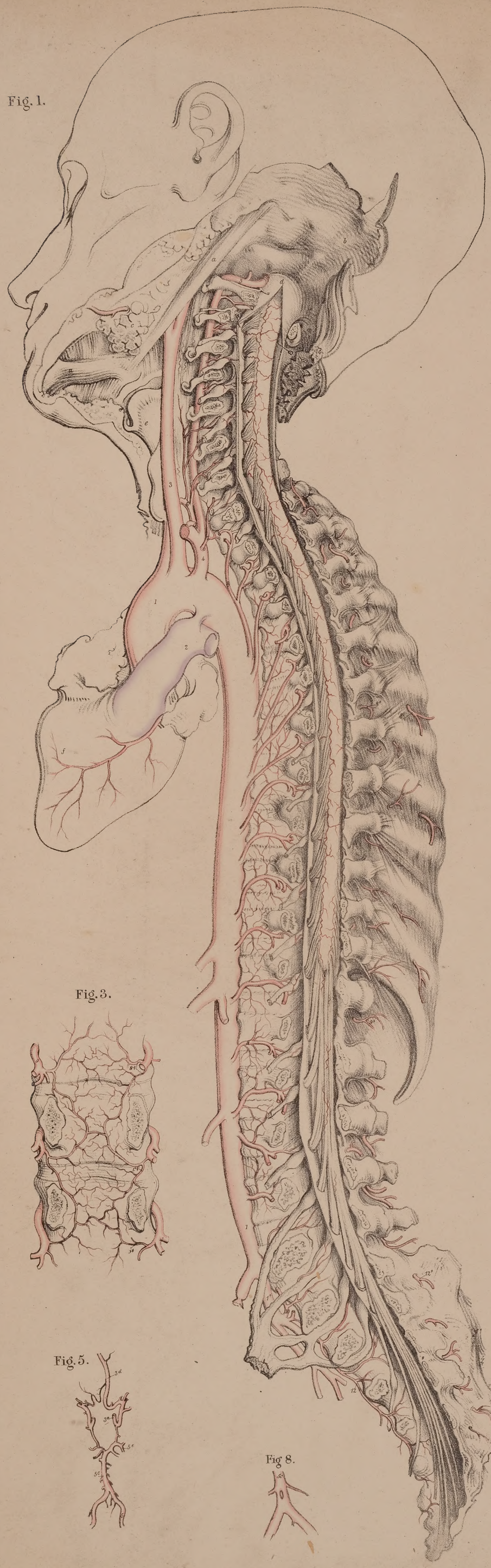

Fig. 2.

Fig. 3.

Fig. 4.

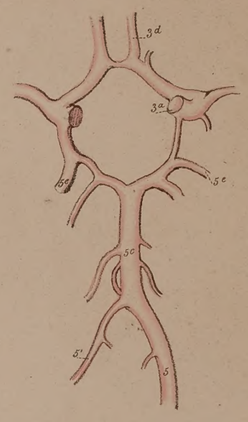

Fig. 5.

Fig 8.

Fig. 6.

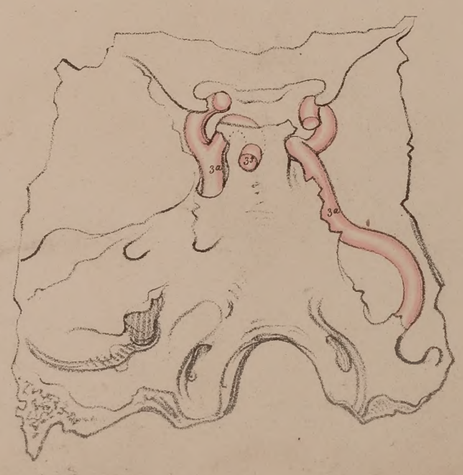

Fig. 7.

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